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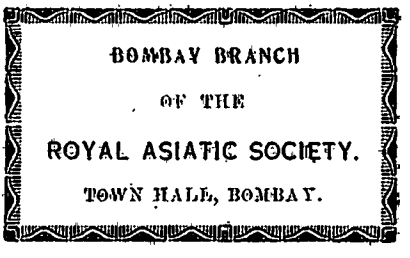

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Government of Bombay

(TRANSFERRED DEPARTMENTS)

Report

of the

Committee on University Reform

Appointed by Government

1924-25

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FIRST EDITION.

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REPORT OF THE COMMITTEE ON UNIVERSITY REFORM

CHAPTER I.

The Reference and Procedure.

We, the members of the Committee on University Reform appointed by the Government of Bombay, have the honour to submit our report.

2. Composition of the Committee.

In a Press Note No. 2983-E, E. D., dated the 26th March, 1924, Government announced that "they had come to the conclusion that, before determining upon any definite course of policy, the whole position of the University of Bombay should be examined in all its aspects by a committee of gentlemen interested in the problem of Higher Education". Another Press Note No. 2983-E, dated the 29th May, 1924, announced the constitution of the Committee as follows:—

1. Sir Chimanlal H. Setalvad, Kt. (Chairman),
2. Dr. R. P. Paranjpye,
3. Mr. A. L. Covernton (Secretary),
4. The Reverend E. Blatter,
5. Mr. M. R. Jayakar,
6. Mr. H. P. Mody,
7. Mr. K. Natarajan,
8. Captain E. V. Sassoon,
9. Professor K. T. Shah,
10. Mirza Ali Mahomed Khan,
11. Sir Purshottamdas Thakurdas, Kt., C.I.E., M.B.E.,
12. Sir Fazulbhoy Currimbhoy, Kt.,
13. Mr. A. B. Lathe,
14. Mr. J. B. Petit.

Of these members Mr. H. P. Mody resigned before the Committee sat, owing to his departure from India. Captain Sir E. Victor Sassoon was prevented by other engagements from taking any part in the work of the Committee. Sir Purshottamdas Thakurdas attended the meetings of the first month, after which his other commitments prevented him from attending. Dr. Paranjpye was similarly prevented after the first month owing to his appointment on other public committees. Sir Fazulbhoy Currimbhoy and the Reverend E. Blatter, S. J., were absent some weeks on a visit to Europe. In November, 1924, Mr. Jayakar had to attend meetings at Calcutta of the Swaraj party. The Chairman was absent from some meetings on account of his duties in the Legislative Assembly at Delhi.

3. Terms of Reference.

In Press Note No. 2983-E, Educational Department, dated the 29th May, 1924, the terms of reference were given as follows :—

"(*a*) To enquire into the constitution and functions of the Bombay University with a view to broaden and liberalise its constitution and to effect its transformation into a teaching University, and to submit proposals for such modifications as may be considered necessary for these purposes.

(*b*) To investigate the relations between the University and its affiliated Colleges both in Bombay City and in the mofussil, and to consider whether it is desirable and feasible to institute other Universities at mofussil centres.

(*c*) To consider the relations which exist between the University and Government and to report whether any modifications are necessary.

(*d*) To consider the question of bringing the University into closer relation with the commercial and industrial interests and public bodies in the City of Bombay.

(*e*) To report on such other matters germane to the above general questions as may be considered necessary.

(*f*) The Committee is authorised to invite opinions from educational and commercial bodies as well as from the general public and to adopt such measures as it thinks fit for the taking of oral evidence.

(*g*) Five members will constitute a quorum."

We have interpreted these terms of reference in the light of the conclusion of Government expressed in the Press Note, Educational Department, No. 2983-E, dated the 26th March, 1924, that "the position of the University of Bombay should be examined in all its aspects" and, while giving special attention to the general questions specifically named in the terms, have examined other questions and various details, the consideration of which seemed to us necessary or helpful to the solution of the main problems. In particular, though the terms of reference make no direct mention of the financial aspect of University reform, we have taken the view that that is a matter directly germane to the general questions referred to us and that it would be expected both by Government and the public that we should give some indication of the expenditure that might be involved in the changes or measures that we recommend and of the sources from which such expenditure could be met. Indeed we think that our report would be incomplete without such a financial estimate. Our estimate makes no pretence of being more than a rough one. And it is, of course, only a rough estimate for the measures of reform that we propose.

4. The Procedure of the Committee.

The Committee held meetings on 95 days, the first meeting being held on the 28th June and the last on 5th May, 1925. The necessity of printing a large quantity of written evidence before it could be considered and the witnesses be orally examined prevented the Committee from making

much progress in July and August. Lengthy discussions were needed to cover the wide terms of reference and to open out the many controversial questions raised. The Committee was compelled to extend its time long beyond the date in October originally fixed for the submission of its report. Its meetings usually lasted two to three hours but sometimes continued for four or five. The total number of hours during which the Committee has sat is about 350. The number of meetings attended by each member was as follows :—

Out of 95 meetings			the Chairman attended	89	meetings.
,,	,,	,,	Dr. Paranjpye	,,	17	,,
,,	,,	,,	Father Blatter	,,	64	,,
,,	,,	,,	Professor Shah	,,	90	,,
,,	,,	,,	Mr. Natarajan	,,	91	,,
,,	,,	,,	Mr. Jayakar	,,	74	,,
,,	,,	,,	Mr. Mirza Ali	,,	69	,,
,,	,,	,,	Sir Fazulbhoy	,,	51	,,
,,	,,	,,	Mr. Lathe	,,	35	,,
,,	,,	,,	Sir Purshottamdas	,,	4	,,
,,	,,	,,	Mr. Petit	,,	72	,,
,,	,,	,,	The Secretary	,,	95	,,

Dr. Paranjpye travelled from Poona to Bombay to attend meetings on 6 occasions: Mr. A. B. Lathe from Belgaum to Bombay on 14 occasions. While the written evidence was coming in and was being printed, the Committee had preliminary discussions and investigated the possibility of a transfer of the University to Salsette. They then examined witnesses. After collecting all the evidence deemed necessary the outlines of the report were decided. A report was drafted by the Secretary in accordance with the Committee's decisions and, after very careful and full consideration and revision (26 meetings were devoted to consideration of the draft report) was adopted by the Committee. The report indicates where the decisions were not unanimous.

5. The evidence.

The Committee issued a Questionnaire of fifty-four questions (see Appendix No. 1) which was despatched to 321 persons, institutions and associations. Written statements in answer were received from 156 witnesses and 155 of these were printed and are submitted to Government along with the Committee's report. The Committee examined orally 58 of these witnesses. Their oral evidence is recorded, but the oral evidence of only six witnesses has been printed and submitted to Government in print. The Committee appointed a sub-committee to report to it on the question of transferring the University and colleges in the island of Bombay to Salsette. The sub-committee, consisting of Sir Purshottamdas Thakurdas, Messrs. Jayakar, Natarajan, Petit, Shah, and the Secretary met the Director, Deputy Director and Land Manager of the Development Department and was shown and discussed various sites in Salsette. The report of the Committee on this subject is contained in Chapter IV of the Report.

6. Cost of the Committee.

Since 8th June, 1924, the date of the Secretary's taking charge of his office to the end of 23rd May, 1925, a total expenditure of Rs. 37,509-10-6 has been incurred.

The details are as follows :—

Item.	Expenditure. Rs.	a.	p.
I. Pay of the Secretary	26,722	7	0
II. Pay of establishment— Consisting of one clerk (Rs. 200), one Typist (Rs. 150), two peons (Rs. 54) at Rs. 27 each, and, two stenographers at Rs. 250 each for two months only ..	5,428	6	0
III. Allowances— Travelling allowance to members and witnesses	4,421	4	0
IV. Contingencies	937	9	6
Total ..	37,509	10	6

7. Employment of Graduates.

The recommendations which the Committee have made will, if carried out, make the University immediately to undertake the great and important work of post-graduate teaching and bring the University in closer touch than hitherto with the industrial and commercial life of the Presidency, while at the same time imparting a greater width and depth to the range of studies represented by the several stages and branches of learning taught in the University or its affiliated colleges. This, it is hoped, will go a long way towards raising the standards of attainment in them to a level with those reached in the Universities of Europe and America. Our recommendations also provide for a more extended and thorough training in science and technology, which should greatly increase the vocational usefulness of the graduate of the Bombay University and fit him to take up without much further training responsible duties in the workshop and the factory, in positions which are at present filled by trained men from abroad. At the same time, the Committee strongly feel that their recommendations can achieve their object only if Government as well as other large employers of educated intelligence, fully realise their responsibility to accord the maximum encouragement to the graduates of the University by employing them, even at some initial loss of efficiency. The Committee trust that, with the closer association between the leaders of industries and commerce and the University, which is a main feature of their recommendations, there will result better mutual appreciation between employers and the graduates, who must look to the former in increasing measure for their own advancement as well as for opportunities of national service. To Government as well as to captains of industry, the Committee commend the wise and statesmanlike observations of one who stood in the first rank of Britain's

Empire builders. In a minute dated December 31, 1824—just over a century ago—Sir Thomas Munro wrote: "What is in every age and every country, the great stimulus to the pursuit of knowledge but the prospect of fame, or wealth, or power? Or what is even the use of great attainments if they are not to be devoted to their noblest purpose, the service of the community, by employing those who possess them, according to their respective qualifications, in the various duties of the public administration of the country? How can we expect that the Hindus will be eager in the pursuit of science unless they have the same inducement as in other countries? If superior acquirements do not open the road to distinction, it is idle to suppose that the Hindu would lose his time in seeking them; and even if he did so, his proficiency under the doctrine of exclusion from office, would serve no other purpose than to show him more clearly the fallen state of himself and his countrymen. He would not study what he knew would be of no ultimate benefit to himself; he would learn only those things which were in demand, and which were likely to be useful to him, namely, writing and accounts....Our books alone will do little or nothing: dry simple literature will never improve the character of a nation. To produce this effect it must open the road to wealth, and honour, and public employment. Without the prospect of such reward, no attainment in science will ever raise the character of the people." In the opinion of the Committee, many of the defects of our educational system and its products are the outcome of the cause so presciently foreseen by Sir Thomas Munro. And although the position of Indians in the Public Service has improved much since the minute was written, the Committee feel that only the certainty that he has a preferential right to the highest employment in his own country, can provide the Indian graduate and the University with the stimulus needed to raise and maintain their standards at as high a level as those reached in lands where such a right is accepted and acted upon as a matter of course.

8. Acknowledgments.

The Committee wish, before concluding, to place on record their high appreciation of the valuable assistance which Mr. A. L. Covernton has given to them in the double capacity of member and secretary. He has placed freely at the service of the Committee his long and wide educational experience as Fellow and Syndic of the University and as Principal of the Elphinstone College. In addition to taking his full share in the deliberations of the Committee, Mr. Covernton has had as Secretary to attend to the numerous details connected with its enquiry and the Committee owe him a debt of gratitude for the admirable way in which these were managed. The small staff with which he was provided for the purpose has responded cheerfully to the calls made upon it, and the Committee take this opportunity of expressing its appreciation of the services of Mr. V. K. Panse, Head Clerk, and Mr. S. S. Kulkarni, stenographer. The Committee also convey to the Bombay University their acknowledgment of its courtsey in having allowed the use of its rooms for holding meetings.

CHAPTER II.

THE DEVELOPMENT OF THE UNIVERSITY OF BOMBAY.

9. The Despatch of 1854.

The principles and policy underlying the foundation of universities in India are set forth in the Despatch of the Court of Directors to the Government of India, No. 49 of 19th July, 1854. The purpose of the British Government in encouraging education in India was therein declared to be to produce a higher degree of intellectual fitness, to raise moral character, to create a supply of public servants, to develop the resources and commerce of the country. The means suggested were the diffusion of the improved arts, science, philosophy and literature of Europe, with Oriental learning and institutions as auxiliaries. The purpose of the Indian universities was to encourage a systematic liberal education by conferring degrees as evidences of attainments and adding further marks of honorary distinction. The universities were " not so much to be in themselves places of instruction as to test the value of the education obtained elsewhere ". They were to be purely examining and affiliating organisations on the model of London University. Subjects connected with religious belief were to be strictly excluded from the examinations. Law, Civil Engineering, the Classical Oriental Languages and the vernaculars were to be included. The " marks of honorary distinction " were to be awarded on a post-graduate examination corresponding to the later M.A. The governing body of the University, the Senate, was to consist, in the case of Bombay, of the existing Board of Education with some additional members to secure fair representation of all systems of education and religious belief, " including natives of India ".

10. The foundation of the University.

In accordance with this Despatch schemes for Universities of Bombay, Calcutta and Madras, with almost identical constitutions and uniform standards were drafted. The University of Bombay was incorporated by Act XXII in July 1857. The first Matriculation examination was held in 1859-60. In 1860 the University may be said to have commenced work, Elphinstone College, the Grant Medical College and the Law Class being affiliated in that year, Wilson College 1861, St Xavier's 1869. The first F.A. and B.A. examinations were held in 1861-62 with 15 and 6 candidates respectively. Mahadeo Govind Ranade and Ramkrishna Gopal Bhandarkar graduated that year in the first class. The first M.A. examination was held in 1863-64 with five candidates. Thirty years later (1891) there were ten Arts Colleges, one Medical, one Engineering or Science, and five Law Classes ; three thousand presented themselves for Matriculation and 132 graduated. In the current year (1924-25) there are 25 affiliated Colleges with some 10,000 students and 247 registered High Schools. Over 8,000 candidates present themselves for Matriculation and 1,900 for the final degree examinations.

11. Constitutional Developments : 1860—1904.

It will perhaps be most convenient to sketch the development of the University under two heads, (*i*) its Constitution and (*ii*) its curricula and examinations. The Act of 1857 created the Governor, Chancellor: an honorary Vice-Chancellor holding office for 2 years nominated by the Governor in Council: a Senate of not less than 26 Fellows and as many more as the Chancellor might think fit: ten of the Fellows held office *ex-officio*, namely 2 members of Council, the Chief Justice, Bishop, Commander-in-Chief, Director of Public Instruction, 1 Educational Inspector, 3 Principals of Government colleges. At least 16 were to be nominated for life by the Chancellor. The Chancellor, Vice-Chancellor, and Fellows constituted the Senate or governing body with power to make regulations (subject to the approval of the Governor in Council), conduct examinations, confer degrees, appoint officers, and manage the property of the University. The Senate consitituted four Faculties of Arts, Law, Medicine and Engineering, and created an executive body, the Syndicate, consisting of the Vice-Chancellor and seven Fellows elected by the Faculties, 3 for Arts, 2 for Law, one for Medicine and Engineering each. The Registrar was elected by the Senate by ballot. No power was given to the University to inspect or supervise the staff or equipment of affiliated colleges or schools. This constitution remained virtually unaltered till the Indian Universities Act of 1904. Although this constitution vested a great deal of power in university matters in the hands of the Governor, the independence of the University was always recognised and respected. In 1867 the Vice-Chancellor, Sir Alexander Grant, uttered a warning against officialisation of the University, which drew from the Governor, Sir Bartle Frere, a declaration that "no man worthy to be a Fellow of this University would consent to serve as a mere nominee of Government bound in any way to prefer the behests of that Government to the dictates of his conscience or independent convictions". In 1871, a protest was made against the nomination of gentlemen, whether Indian or European, as Fellows merely for the enhancement of their social position. In 1891, a draft bill was prepared to make the University to some extent a self-governing body and remove the limitation of its functions to mere examination and conferring of degrees. The views of the Senate secured the substantial adherence of the Bombay Government, but the Government of India refused to legislate. Only one small step towards self-government was achieved by the grant in 1891 to masters of Arts and holders of equivalent degrees of the right to elect annually two persons to be recommended for nomination by the Chancellor as members of the Senate. In 1900 this right of election was extended to all graduates of 10 years' standing. The constitution of the Syndicate was altered by granting a fourth representative (for Science) to the Arts Faculty in 1881 and in 1898 by including in it the four Deans of Faculties and adding a second representative to Medicine and Engineering, thus raising its total number to fifteen. In 1894 the University was given the privilege of electing a member of the Provincial Legislative Council.

12. The University Act of 1904.*

As we said in our ninth paragraph, universities in India were modelled on the London University. In 1898 the London University was transformed into one in which teaching and examining functions were combined. The Government of India resolved again to follow the lead of London. The constitution of the universities as set up by the Act of 1857 was by this time being deemed unsatisfactory in certain vital matters. Complaints were being made that their governing bodies were too large to be effective and too ill-composed to be competent. It was said that the Senates and other responsible bodies were too unwieldy† and were not adequately representative of the teachers in whom special knowledge of university functions was to be found. It was further pointed out that the University had no statutory power of controlling the institutions it affiliated and no statutory standards by which to decide whether they were entitled to affiliation. It was alleged that the standard of attainment was declining. On the other hand there was a strong feeling that the University should have more self-governing powers and have more extended scope for undertaking teaching and research. A University Commission was appointed in 1902. On the recommendations of that Commission the new University Act of 1904 was based. When the draft bill for that Act was before the Legislature, the University of Bombay took exception to such legislation being undertaken with regard to this University and it was contended that the complaints which occasioned the new legislation had no justification with regard to the working of the University of Bombay. During the discussion on the Imperial Legislative Council, where the views of the Bombay University were strongly put forward, it was conceded that, if the Bombay University had stood by itself, the need for such legislation would have been much less. Experience, however, has shown that the evil effects which were apprehended from the new Act have not manifested themselves, in all probability, because those responsible for the working of the Act applied it in a liberal spirit. In so far as the Act gave a more effective control to the University over the affiliated colleges and made it possible for the University to undertake post-graduate teaching and research, it is now recognised that the Act has worked beneficially in the interest of the University. Under the constitution set up by this Act of 1904 the Senate may contain not more than ten *ex-officio* members, and of other Fellows not less than fifty and not more than one hundred. Not more than ten are to be elected by registered graduates, another ten by the Faculties: the Chancellor has power to nominate eighty. Fellows are appointed no longer for life but for five years only. The Senate remains the corporate and governing body, *i.e.*, only Fellows are members of the University. Though the elective element has risen to twenty, the Chancellor still nominates eighty per cent. Two-fifths of the Fellows elected and nominated must be persons following the profession of teachers, but there is no provision for direct representation of teachers or particular subjects

* See Calcutta Commission's Report, Chapter III, Sections 62—90.

†The number of nominated Fellows in Bombay had risen by 1868 to 175 and by 1900 to 305.

or colleges. Under the Act of 1904 the control of Government over University matters instead of being reduced was increased. Eighty per cent. of the Fellows were still to be nominated by the Chancellor and the election of twenty Fellows was still subject to the approval of the Chancellor. The University appointments and making of regulations were dependent on the approval of Government and affiliation and disaffiliation of colleges, which was formerly within the final decision of the Senate, was made the direct act of Government on the recommendation of the Senate. The maximum number of the Syndicate was fixed by the Act at 17, including the Vice-Chancellor, the Director of Public Instruction, and not less than 7 or more than 15 Fellows, elected by either the Senate or the Faculties. Among these fifteen were to be college teachers to the number of at least one less than a majority. The Regulations fixed the number at 13, all to be elected by the Faculties. Teachers thus secured a substantial share in the government of the University. The Senate was empowered to make regulations for the recognition of High Schools. Actually it reserved freedom to accept the list of recognised High Schools kept by the Educational Department or to institute its own enquiries. Further, the appointment of the Director of Public Instruction *ex-officio* on the Syndicate contributed to secure co-operation between the Educational Department and the University in control of High Schools. The conditions of affiliation of colleges were defined and provision was made for inspection of them, and for control of the conditions of students' residence and inter-collegiate relations. Lastly and most important of all, the Act gave the University power to become a teaching university, and not only to appoint a University teaching staff but also maintain educational institutions for promoting research. The framers of the Act primarily intended that the University should undertake direct teaching of post-graduate courses. It thus set up a compromise similar to that at London University in 1898, a combination of the affiliating and examining with the teaching type of university.

13. Constitutional developments : 1906—1924.

In the last twenty years developments in the constitution have aimed principally at carrying out the suggestion of the Act of 1904 to make the University a teaching institution. In 1912 a Committee was appointed to draw up a scheme and the Committee recommended reference to an educational expert. Sir Alfred Hopkinson, Vice-Chancellor of the Manchester University, visited Bombay and reported in 1914. He was not in favour of a salaried administrative Head of the University and proposed to solve the difficulty of getting the increasing work done by employing a full-time Registrar and a paid full-time Secretary to the Joint Matriculation Board and by making more use of University and College Professors for University administrative work. Similarly, he proposed that the Syndicate should relieve itself of pressure of work by delegating powers to Standing Committees. He declared that the proposal to establish additional Provincial Universities was premature. To link the Colleges and University closer he proposed that every Principal of an affiliated college should be a member of the Senate. The scheme which he approved for post-graduate teaching has been mentioned in Chapter VII,

paragraph 76, and its later developments are there described. Sir A. Hopkinson in short accepted the new constitution as providing sufficiently for the development of the University and approved the lines already framed for that development with a few suggested modifications. One important suggestion was directed to getting rid of the two competing school examinations, the Matriculation and School Final, and the long standing controversy connected with them, by the creation of a Joint Examination Board to represent both the Government Educational Department and the University. In the course of lengthy discussions on this another suggestion was put forward that while there should be one joint examination, it should be conducted by the University and that while the University determined the syllabus in subjects required for Matriculation, the syllabus in other subjects of secondary education and the selection of them required for qualification for Government service should be determined by Government. Ultimately this rival suggestion was not accepted and in 1918 a Joint Board of representatives of Government and the University was created for conducting a common School Leaving Examination. This Board continued to function till 1924. Government then withdrew from the Joint Board and the University has now adopted a scheme similar to the rejected scheme mentioned above and has constituted a University Board for conducting a common School Leaving Examination. On this Board High School teachers and Inspectors of schools are to be represented. It is not necessary to detail the constitutional developments of the last few years: they are described in the quinquennial report of the Director of Public Instruction for 1917-18 to 1921-22 (Sections 46—50) and include an increase of the *elected* members of the Syndicate from 13 to 15, four of whom may be chosen from the Senate irrespective of the Faculty to which they belong. This was intended to open the Syndicate to men of affairs. In 1921, the University reported to Government its proposals for amending the constitution in the light of the Report of the Calcutta University Commission. It accepted the proposal for a Board of Intermediate Colleges and Secondary schools and for a full-time paid Vice-Chancellor, and proposed to raise the Senate's number to 150 and make 70 per cent. of its members elective. It proposed to divide the power of the Syndicate by instituting an Academic Council. It proposed a three years' course for the University and a four years' course for Intermediate Colleges. It proposed development of the University teaching functions as regards post-graduate work. These were radical proposals, though they did not go so far as the Calcutta Commission's scheme. It was mainly the financial difficulty that stood in the way of their being carried out. Lastly, one small alteration gave increased power to the Senate. Till 1918 the University budget was solely a matter for the Syndicate's consideration. In that year it was resolved to lay it before the Senate at its annual meeting, and thus the finanical working of the University is now subject to review by the corporate and governing body.

14. Curricula and Examinations: 1860—1880.

When the University opened, there were four Faculties, Arts, Medicine, Engineering and Law. Candidates for degree in the last three were

required to be graduates in Arts: for the Licentiate of Medicine and B.A., Matriculation was the entrance qualification. In all cases the course was a three years' one. Candidates for Matriculation were required to have completed their sixteenth year. We restrict our detailed account of the curricula mainly to the Arts Courses. There were four examinations in Arts, Matriculation, First Examination in Arts (one year after Matriculation), B.A. (three years after Matriculation), B.A. Honours (not more than five years after Matriculation). All who graduated with Honours in the University of Bombay were entitled to the degree of M.A. without further examination. Graduates of other universities were examined for the M.A., the examination being the same as that for B.A. Honours. There was an oral test. English was the medium of instruction. The syllabus was a wide one to test general culture. Matriculation included English Language (no prescribed books), a classical language *or* a vernacular, Mathematics, and general knowledge of History, Geography and Natural Science: the First Examination the same but with set books and Logic instead of Science: the B.A., English, classical Language *or* vernacular (with set books), Mathematics *and* Mechanics, History of England, India, Greece and Rome, Logic *and* Moral Philosophy and *either* Rhetoric and Criticism *or* a Science subject. The candidate for Honours was examined in one of six groups, one of which was the Evidences of Christianity. The language group included English with one classical language. In 1868-69 the M.A. Examination replaced that for B.A. Honours: and a first class was accepted as equivalent to Honours.

15. Curricula and Examinations: 1880—1900.

In 1880, the First Examination in Arts was replaced by the Previous Examination and an examination in English, classical language and Mathematics called the *First B. A.* was introduced at the end of the second year. The final B.A. course from 1879 includes English, Classical Language, and one of five optionals. In 1881 a B.Sc. course based on that of London was added as an alternative to the B.A. and included English, mixed Mathematics, Chemistry, Physical Geography and one of four groups of Physics, Zoology, Botany and Geology. In 1882 the limit of age at Matriculation was abandoned and in 1883 all examinations were thrown open to women on the same terms as men. In 1892 the course for the B.A. was increased from three years to four, the First B.A. examination was dropped and the Intermediate examination instituted at the end of the second year. The B.A. course was again altered to consist of three compulsory subjects (English, Classical Language and History with Political Economy) and one of six optionals which included Roman History and General Jurisprudence. Passing in this last exempted the student from the first LL.B. examination. In adding a fourth subject Bombay differed from other Indian Universities, the general tendency elsewhere being to encourage depth rather than breadth in the higher examinations. Simultaneously, the Previous syllabus was reduced from six to four subjects by omission of Logic and Natural Science. Logic was transferred to the Intermediate course where also Physics replaced the more advanced Mathematics. The Education

Commission of 1880 had recommended a bifurcation of studies in High Schools, one course literary and cultural leading to the University, the other practical and commercial or industrial and suitable as a qualification for public service. The Government of Bombay sought the co-operation of the University which instituted in 1889 a University School Final Examination to serve as a termination to a mordern side in High Schools. The examination included three complusory subjects, English, a modern European or Indian Language, and Arithmetic and two or three optional subjects. Government declared that it would recognise as qualifying for public service this examination, if it included two of the 'modern' subjects, and would cease to recognise the Matriculation for public service. About this time the Bombay Matriculation examination, to whose superiority the Education Commission in 1880 bore testimony, was subject to severe criticism and demands for reform, but nothing was effected save a heavy reduction in the percentage of passes in 1893. To sum up the changes of this period, the University extended and—perhaps unduly—emphasized its examining functions. Except for a period it maintained its conception of its B.A. degree as a mark of broad and general studies. Specialisation was admitted only in its M.A. course, and even there to a less extent than elsewhere in India. The study of Science was gradually introduced but did not gain a rank or estimation equal to that of Arts. The Engineering course was improved. The use of oral tests was maintained.

16. 1904—1914 : Sir George Sydenham Clarke's proposals.

The twenty years previous to the Universities Act of 1904 were on the whole a period of conservative pursuit of a traditional policy of diffusing general education suitable to form the basis for all professional and technical knowledge and of testing progress at regular and frequent intervals. In the new century there was a growing feeling that a university should lay more stress on its teaching than its examining function, that in India the development of scientific and naturalistic studies had not kept pace with European progress, and that in the pursuit of breadth something of depth, accuracy and thoroughness was being sacrificed, with a consequent further loss of originality and interest. On the other hand there was an increasing tendency on the part of Indians to criticise the courses for neglect of Indian history, philosophy and literatures. At the beginning of the century the vernaculars were made compulsory at the Matriculation and introduced into the M.A. course, and the age limit of 16 at Matriculation was restored in 1906 to secure, as it was thought, a greater maturity in University students. In view of the dominating influence of the Matriculation examination over secondary education, and the failure of the University School Final Examination to attract candidates, the conduct of the School Final Examination was in 1904 abandoned by the University to Government who sought without success to make it a means to divert from Matriculation the large number of candidates who did not intend to go to the University. A new degree and courses in Medicine, the M.B., B.S., were introduced and higher courses for the M.D., M.S., and LL.M. were instituted. Thus was

inaugurated a decade of reforming activity which began with the passage of the University Act of 1904 and was heated into controversy when the Chancellor, Sir G. Sydenham Clarke, in December 1908 addressed a letter to the University, stating the necessity of radical changes to bring the teaching of science and higher education into harmony with modern requirements. He proposed the raising of the age limit for Matriculation, the abolition of Matriculation and Previous examinations, the introduction of elementary science studies into the school and First Year course, bifurcation between Arts and Science after the First Year; the exclusion of Science from the higher Arts course; for the B.A. a course of three subjects, namely, English, second language or Mathematics and one optional: an Intermediate Science course of English and three science subjects and a B.Sc. course of two subjects, principal and subsidiary; creation of an Honours course distinguished from the Pass by the addition of a specialised study of one subject to the Pass subjects; and M.A. course of two years in one subject. These proposals excited the most vehement discussion which turned mainly on six points: the age limit, the number of University examinations, the relative values and correlation of arts and science studies, the nature and form of the distinction of Pass and Honours courses, the extent to which undergraduate studies should tend to specialisation, and, most inflammatory firebrand of all, the educational and political value of the study of English history. Sir George Clarke's proposals raised far-reaching questions of the ulimate aims, ideals and methods of study, questions which inevitably caused some heat. In 1913 the Matriculation was not abolished but science, geography and the vernaculars ceased to be examination subjects, proficiency in them being guaranteed by certificate of a Head Master: the standard of passing was slightly raised: elementary science took the place of History in the First Year course and the Previous University examination became a mere college test; bifurcation was introduced as Sir George Clarke had proposed, and a study of Indian Administration was inserted into the Intermediate course in place of physics, with a view to acquainting the student with the system of administration in India. Specialisation was introduced into the B.A. course which became a course in English and one optional and the Chancellor's conception of Pass and Honours was accepted. The M.A. course was made a two years' course and a demand was created for advanced University teaching for it. The Science courses were completely revised with a view to give greater importance to practical work, proper correlation of subjects and specialised study leading up to research: but the reforms went beyond Sir George Clarke's proposals in excluding any study or test in English from the Science courses. The Agricultural courses also were revised. The University was brought into closer touch with the business life of the city by the institution of a degree and course in Commerce. Finally, to encourage advanced studies and research, grants were received from the Government of India and Sir Alfred Hopkinson was brought out in 1913 to advise on reorganisation. It is still an open question whether the University was right in following Sir George Clarke in certain matters. It was undoubtedly right on the

whole in the increased values given to science and practical methods of studying it. It is one of the questions this Committee has to decide whether the changes adopted in the Arts course were wise, particularly the substitution of certification for examination in certain subjects at Matriculation, the specialisation of the B.A. courses, and the narrowness of the Pass B.A. courses.

17. Curricula and Examinations : 1914—1924.

The outstanding feature of the last decade has been the organization of post-graduate work with the help of grants from the Government of India. It is not necessary to detail this, for there is a full account on pages 868-75 of the University Calendar for 1924-25. But it is necessary to point out that this work has gone but a short way. There are only two University Departments, those of Sociology and Economics, and only four University teachers : the number of students is still small : the University library is still on a very small scale : the amount of research done and published is still small : the funds for encouraging research most inadequate. Nevertheless a nucleus has been created, and the value of such work has been recognised. There are stirrings and prickings of the conscience of culture. Perhaps the second feature of the decade is the movement towards a better co-ordination and wider range of University studies. This is manifest in the new relations established between the subjects of History, Philosophy, Sociology and Economy. Instead of linking such subjects in pairs regardless of their real bearings on each other or without attempt to make them throw light on each other, the student can now in the higher examinations devote himself wholly to one or treat one as subsidiary to another. On the other hand what seems to some an excessive freedom has been permitted the student in the choice and grouping of languages in pairs. The existence of a science and art of teaching has been recognised by the University. The movement towards full recognition of the cultural value of Indian vernaculars has grown distinctly stronger. They are now recognised for B.A. Pass study. A separate Board of Studies for vernaculars has been created. The modern European Languages have been admitted to the rank of Honours subjects. Of the professional courses the Medical has been recently revised to bring it into line with the requirements of the British Medical Council. The Engineering courses have been revised with a view of extending them over four years but as this involves expenditure for which Government cannot at present find funds the new rules are suspended. The Intermediate Science Examination has been made the point of departure for the Medical and Engineering courses, which is a distinct raising of standard. Two remarkable alterations are the introduction of examination by compartments and the abolition of the age limit for Matriculation. The former is held by some to render examinations a poorer test of ability as a whole and to lower the value of the degrees. Others defend it as admitted in many other Universities, especially in Pass examinations, and claim that it lightens the burden of students and does not make the study of the Subject less thorough. The abolition of the age limit is a reversal of the practice which was adopted in 1860 and re-adopted in 1906, and which

Sir George Clarke desired to enforce even more strictly. It is usual in most European Universities to have an age limit and it is the accepted view there that it is necessary to secure a certain physical and intellectual maturity in all University students. But the view has prevailed in this University that it is not necessary to lay down an age limit because in fact the average age of students is found to be eighteen.

18. Dates of affiliation of recognised institutions.

The following are the dates of affiliation of all the various colleges now recognised by the University :—

1.	Elphinstone College	..1860
2.	Government Law School	..1860
3.	Deccan College	..1860
4.	Grant Medical College	..1860
5.	Wilson College	..1861
6.	Engineering College, Poona	..1865
7.	St. Xavier's College	..1869
8.	Gujarat College	..1879
9.	Rajaram College, Kolhapur	..1880
10.	Baroda College	..1881
11.	Fergusson College, Poona	..1884
12.	Bhavnagar College	..1885
13.	D. J. Sind College, Karachi	..1887
14.	Bahauddin College, Junagadh	..1901
15.	Agricultural College, Poona	..1907
16.	Sydenham College of Commerce and Economics	..1914
17.	New Poona College	..1916
18.	Karnatak College	..1917
19.	M. T. B. Arts College, Surat	..1918
20.	Willingdon College, Sangli	..1919
21.	Sind National College, Hyderabad ..	..1922
22.	Secondary Training College	..1922
23.	N. E. D. Civil Engineering College, Karachi	..1923
24.	Poona Law College	..1924
25.	Nasik Arts College	..1924

In appendix No. 2 we print a table showing the growth of the number of candidates at the various Arts and Science examinations since 1860.

19. Three outstanding events in the history of the University.

Reviewing the main facts in the history of the University of Bombay, three events stand out prominently to mark the lines of its development. The Act of 1904 gave the University control of its affiliated colleges and registered High Schools and rendered possible the development of the University's teaching functions. Sir George Sydenham Clarke's letter of 1908 called attention to the inadequacy of Victorian educational ideals and methods to supply the needs of twentieth century industry and science. The Calcutta University Commission's Report of 1919 invited

attention to new types of Universities and the necessity of building up University education on the solid basis of a sound, general secondary education. Each of these three events heralded a marked advance in the conception of the University's constitution and duties.

20. Its policy in regard to its constitution.

The University of Bombay has not stood still all the sixty years of its life nor has it been without a policy or ideals to govern its development. Absolute consistency is not to be expected in the policy of Universities any more than States, for policy must meet changing circumstances and in education, as in statesmanship, experiment is not only permissible but desirable. Certain principles stand out in the history of our University. Consistently it has voiced a demand for greater powers of self-government. Slowly—the more slowly perhaps because it was not self-governing—it has moved towards securing for teachers a share in the management of the University whose function of teaching they, not it, have been carrying out. Steadily, if as yet inadequately, it has striven for a better representation of, and a closer relation with, the community it serves. As soon as funds were available, it arranged to perform the teaching function which the Act of 1904 gave it and has for a dozen years been seeking to improve its performance. Ever since the Act gave it power it has been striving to exercise a considerate control over the institutions affiliated to it, but the ideal of educational independence which prevailed at the time when many of them were founded and the great distances of India make this difficult. It has consistently emphasized the importance of improving secondary education and for that purpose has co-operated with Government in conducting at the motion of Government the University School Final, sharing in the Joint School Leaving Examination Board and even now undertaking to conduct a School Leaving Examination of much wider scope than mere University needs demand.

21. Its academic policy.

In more purely academic matters too the University has had a policy. From the beginning it recognised that higher education must be broad-based on a foundation of general culture. Its first syllabuses were so conceived and in variant forms have so remained. With this ideal it has endeavoured to reconcile scope for specialised and expert knowledge, at first in a small way, later in Honours courses of two related subjects only. Secondly, it has aimed at the diffusion of higher education at a number of suitable centres throughout the Presidency, under the belief that culture would spread more rapidly from such local centres than it could radiate from Bombay. The modern demand for new Universities springs from a similar desire to see University influence decentralised and diffused as widely as possible. Bombay was the first University in India to set up a separate degree and course for science (in 1881) and if it has not kept the lead, at least the University and its best colleges have always insisted on the necessity and value of scientific education. Another feature of its curricula has been the emphasis laid on the study of classical

languages. The value of such study, easily obscured by the demands of science and by the claims of the vernaculars and modern 'utility' languages has so far been consistently maintained. Nor have the vernaculars been wholly ignored. They were alternative with other languages at the beginning and have been restored to the B.A. (Pass), M.A. and Matriculation courses. One more point of policy only need be mentioned. This University until 1908 insisted on a continuous series (at least three) of examinations of candidates for its degrees. Underlying this was the belief that it is necessary to test frequently the student's progress in order to prevent waste of the student's time, misdirection of his energy and injudicious promotion. The evils attendant on examinations are more clearly understood in these days. Yet even now the importance of having tests of the student's progress conducted by an organisation of accepted authority and impartiality has not diminished and the wisdom of the reduction of the number of University examinations in 1912 has been doubted.

CHAPTER III.

DEFECTS ATTRIBUTED TO THE UNIVERSITY OF BOMBAY.

22. What is the aim of University Education in this Presidency ?

The first question addressed by the Committee to witnesses in its Questionnaire (Appendix No. 1) was as follows :—

" What in your opinion should be the aim and functions of University education in the Bombay Presidency ? Do you consider that the existing system of University education in this Presidency affords the young Indians of this Presidency adequate opportunities of attaining this aim ? If not, in what main respects do you consider the existing system deficient ? "

23. The aim is cultural.

The first part of this triple question was intended to elicit the prevailing conception of University ideals and criticism of the manner and extent to which such ideals were carried out in the University of Bombay. The answers of witnesses reveal a clear consciousness of the manifold character and far-reaching effect of the University's activities but some difference of opinion as to the relative importance of the ends to be sought. For the most part witnesses stress the educational or cultural side of a University's work. It is for them first and foremost a preparatory school for life, an organisation for training and moulding the immature, whether as individuals, as members of a society, of a national community, or of the brotherhood of man. If the University of Bombay has a function in any way different from those of other universities of India, it is, implies Professor Seal (No. 119) because of its geographical position at the Gateway of India. The situation of Bombay emphasises the urgency of keeping touch between East and West, so that Indians in this Presidency in particular may be moulded to a life which, without ceasing to be truly national and Indian, yet expresses a synthesis of Europe and India, the West and the East. But the work of this University still remains primarily cultural. Its purpose must be, not merely preparatory and educational in the narrow sense of training for vocation or profession, but the moulding of character, and in particular the building up of a character that subtly blends the finer traits of oriental and occidental types. It must combine a well balanced curiosity of mind with a capacity for faith, create a habit of disinterested search for truth that does not disregard facts, offer the gift of vision along with the faculty of action (Mr. K. S. Vakil, No. 118). " The University must act as the custodian of the culture and attainments, literary and scientific, of a people linked together by some common bond of language and tradition : it must train and fit its alumni for the battle of life ; and, to that end, teach them to cultivate and develop the vast resources of their country ; and it must culivate and promote the great ideal of the brotherhood of man.....by fostering a closer acquaintance with the Arts and Science, the Sentiments and Beliefs, the History and Religion of the various communities..... To the worship of Mammon let the University oppose the ideal of Service, the cult of the Beautiful, the religion of Humanity " (Miss G. J. Bahadurji, No. 46).

24. The aim is practical.

With these witnesses training for the practical and material ends of life is subordinate to the more humanistic ends described above. There are others who feel that the practical needs of life are apt to be overlooked and who emphasize that university education "should be directed towards the production of men with minds more adaptable to dealing with the important affairs bearing upon the development of the country. It should aim at appealing to the business man, whether an agriculturist, an engineer or an industrialist,.....it should aim at producing a mind which can readily address itself to practical problems" (Mr. T. F. Main, 45). This is no mere limitation of University education to a narrow scientific or utilitarian groove, nor an abandonment of the cultural ideal; only a different view of the immediate need, an insistence that close observation of the concrete facts of life and nature is of equal cultural value with the inculcation of ideas and perhaps more needed for the temperament of the Indian and the conditions of Indian life.

25. The aim is the pursuit of knowledge, Science.

The age-long quarrel between the humanist and the scientist is mainly a quarrel of method and materials. Dr. Parker protests against the excessive application to "Arts" of the decentralising and analytical methods of Science, and calls for a better correlation of arts and science as the remedy. The Scientist declaims against the unwarranted generalisations and preoccupation with abstractions in humanistic studies, and demands increased specialisation. Each has grounds for complaint, though perhaps the scientist has in India hitherto had the greater grievance. But each makes a liberal culture his end. There is another but rarer type of critic to whom the true function of a university is not the training of immature youth but the investigation, discovery and publication of truth, and its duty to devote, if not the whole, the greater part of its time and resources to learning for its own sake and research. This is a conception which is naturally more common in countries in which universities are an older growth and have attained a more perfect organisation than in India. In this country so long as but a small proportion of the population has received any education at all and so long as an even smaller proportion is seeking higher education, it appears inevitable that research should for the present hold a secondary though a well marked place in the aims of Indian Universities.

26. The University's Culture must not be jealously exclusive.

The conception of University education in India as a liberal culture helping the most capable to develop to the utmost their own and their country's resources is sometimes expressed in a form that we think would prevent Indian culture from being liberal in the highest sense of that word. One witness (Mr. J. B. Durkal, No. 74) argues that the Bombay University must be completely Indianised: in spirit by the substitution of a religious for the secular principle in education: in substance by the introduction of Indian text-books and Indian subjects of study such as Indian Medicine and Theology: in method by the use of the vernaculars

as media of instruction and the subjection of the life of the student to Indian ideals and customs : and lastly, in personnel. This seems to us an application of national sentiment that would give an unbecoming narrowness to Indian culture and a fatal isolation to Indian communities. Nor does it seem in accord with the genuine desire and aspirations of indians in general, still less of Indians in this Presidency. A national spirit that seeks to sustain itself solely on the memories and heritage of its own past and deliberately excludes the tonic air of foreign experience, alien culture, remote or neighbouring, and the stimulating effect of continuous contact with strange races, is doomed to decay.

27. Some strong criticism of the University of Bombay.

The loftiest aims of University education are very far from being attained by the University of Bombay, according to a very large number of the Committee's witnesses. " Our Universities have failed in their mission of advancing the cause of learning....They provide no facilities for research work, for dissemination of knowledge amongst the people by extension lectures, adult classes or publication of books and research works and making them available to the masses in general. They do not provide practical training, promote social unity and life, give physical culture or preliminary military training. Our University has laid great emphasis upon accidental culture and ideas while entirely neglecting everything that might create love and pride for the indigenous culture of the country " (Mrs. Sharada Mehta, No. 15). " The type of young man at present turned out by the University is generally speaking a comparative failure in commercial and industrial life....This apparent and, it is to be hoped, very temporary failure of our universities to supply square pegs for square holes, my Committee are inclined to think, may be due to inherent fault in the present system of training but do not venture to suggest what these inherent faults may be " (Bombay Millowners ' Association, No. 30). " In the whole life of the University the passing of the examination and not the attainment of knowledge is predominant.... In fine we require new ideals " (Dr. Burns, No. 41).

28. Injustice of sweeping condemnation.

Against sweeping condemnation which neglects or even denies any positive achievement by the University during its sixty years of life, the Rev. J. Duhr (No. 72) utters a useful *caveat :* " It serves no useful purpose and is blatantly unfair to condemn root and branch the educational work of the past fifty years, to hold the University responsible for defects it has done its best to remedy. Nor would it be wise, were it possible, to go in for reforms so drastic as to break entirely with the past and to arrest the normal growth of a system which may have shortcomings and does require reforms, but which in the main is responsible for calling into life, stimulating and securing a deep-going and far-reaching interest in all questions of learning, science, progress, city life, national improvement and aspirations, philanthropy and religion." To say that the University has failed to advance the cause of learning is quite unjustifiable. For sixty years the University has sent forth a stream

of graduates who constitute a large and influential body of cultivated and intelligent men, occupying positions of every grade up to the highest in Government service, practising all the professions, conducting every conceivable kind of business and numerous industries, and exercising intelligently and beneficially important political powers and a considerable measure of self-government. To enable men to perform these functions is one of the aims of a university and their performance is a right and proper use of University education. On this point we cannot do better than quote the remarks of the Vice-Chancellor in his Convocation address of 1917. Replying to those pessimists who have said that the work of this University is a dismal failure, the Vice-Chancellor said :—

" Look at the products of this University, who, in all grades of the Public Service, are serving the State with conspicuous ability and integrity,—look at the Medical Graduates who are giving medical relief and help to their fellow-countrymen in the towns and villages of this Presidency, and the graduates in Law who are following the exacting profession of Law, maintaining the high honour and traditions of their class, and the Architects and Engineers that are ministering to the proper and sanitary housing of the population of large cities. And above all,—look at the love of Education, the spirit of self-sacrifice, the sense of duty to educate their fellow-beings that have been stimulated and have found active manifestation in the great work that is being done by the Deccan Education Society, in maintaining the Fergusson College and the New English School, Poona. To those institutions men of great intellectual attainments who could have easily made for themselves more lucrative careers in other walks of life, are giving their services on a small living wage, seeking their satisfaction in helping the spread of education. This University can also point to the great work that is being unselfishly and cheerfully done for the uplifting of the people of this country by that band of young educated men who compose the Servants of India Society and to the noble work of Professor Karve in the cause of Female Education which has culminated in the establishment of a women's University. I venture to tell these pessimists that this University has produced a profound scholar of the eminence of Sir Ramkrishna Bhandarkar, thinkers like Mahadev Govind Ranade of mighty intellect and Kashinath Telang of quick and subtle mind, and ardent patriots and leaders of men like Pherozesha Mehta and Gopal Krishna Gokhale. The example of every one of them must have been, and will always be, a source of inspiration to hundreds and thousands of young men of this country : And I have the support of responsible official pronouncements that University Education has on the whole been a success. The Education Commission of 1882, after quoting from the Despatch of 1854, the observations regarding the good results to be expected by the spread of European education among Indians and the attendant adoption of the high moral tone which pervades the literature of Europe, proceed to ask the question, to what degree have these expectations been realised ? They then give the following answer : ' Our answer is in the testimony of witnesses before this Commission, in the thoughtful opinions delivered

from time to time by men whose position has given them ample opportunities of judging, and the facts obvious to all eyes throughout the country, and that answer is conclusive ; if not that collegiate education has fulfilled all the expectations entertained of it, at least that it has not disappointed the hopes of a sober judgment.' Lord Curzon's University Commission in 1902 declined to endorse the sweeping condemnation of our University system and considered that many of the criticisms passed on the Indian Universities were not deserved."

29-A. The University has advanced the cause of knowledge and science.

Apart from the use which graduates and under-graduates have made in after-life of the knowledge and training they gained at the University, we affirm without hesitation that the University has contributed greatly to the advance of knowledge and science on this side of India. It has created an increasing interest in and observation of the facts of Nature, of social life and thought, and of the history of the past : and these facts have been recorded in books and rendered available in libraries. It has brought agriculture, industry and commerce within its scope and is taking part in the investigation of the natural resources of the country and the means by which they may be improved. Among the graduates of this University are included men the equal in ability, learning, wisdom and intellectual acuteness of those produced by other universities and as numerous. If this University has achieved less *discovery* by research than some others, it is to be remembered that for forty-five of its sixty years it was not constituted for such work : and for the remaining fifteen or twenty little or no means were placed at its disposal for the exercise of the powers given to it in 1904. But in spite of its lack of means it has provided numerous facilities and its provision is now bearing fruit. Nor has it neglected the indigenous culture of the country. The Bombay Sanskrit Series of texts, the Sanskrit manuscripts of the University Library, the support given to the Bhandarkar Oriental Research Institute's edition of the Mahabharata and to the History of Indian Philosophy are only some instances to the contrary. The complaint of the Bombay Millowners' Association is one not infrequently brought against universities in these days. Yet there are graduates and undergraduates who have become distinguished in commercial and industrial life. It must be remembered too that it is only recently that commerce and industry have felt and expressed a desire for university trained men and that the universities have hardly had time to adapt their training to the needs of industry and commerce. The part played by examination in our university system has been due to the fact that the University was modelled on the old London University : and the charge of being unduly dominated by examination is one to which every University is more or less open. On the whole, Bombay has reacted to the new ideas about examination quite as much as most other universities. It cannot get rid of examination ; but its examinations are not more numerous than those of other universities and it is constantly striving to improve the

conduct of its examinations and the methods of its examiners. During the last ten years the conception of the University has changed. The ideal of a corporate body of teachers and students co-operating in the culture of the mind and the pursuit of knowledge has taken possession of men's minds and the University has steadily moved towards the realisation of the ideal.

29-B. The complaint that University education is being developed out of all proportion to primary education.

Another criticism passed upon University education in India, is that there is too much of it. Mr. Rushbrook Williams in his "India in 1923-24" has pointed out that while scarcely three per cent. of the population is enrolled in the primary schools, no less than 0·5 per cent. of the population is under instruction in secondary schools. "Still more striking," he continues, "are the figures of University education where the percentage of the population undergoing instruction is no less than 0·027 per cent. Since females are almost negligible in the reckoning this figure compares strikingly with the 0·089 per cent. of England and Wales. It thus appears that the structure of Indian education is ill-balanced, for while the poorer classes are predominantly illiterate, the middle classes are educated in a proportion equal to that of countries where social and economic conditions are more highly developed." But while Mr. Williams used this argument to urge that if national education is to be placed upon a solid foundation, the first and most vital task is an attack upon illiteracy, some others have used it to deprecate the expansion and development of University education until a much larger proportion of the population has been given the benefits of primary education. This, we need hardly say, is a short-sighted and superficial view. The Right Honourable A. H. L. Fisher, the eminent English educationist, as a member of the Royal Commission on the Public Services of India, had exceptional opportunities of making himself well-acquainted with the educational conditions in this country. In the course of his speech at the last annual meeting of the Court of the Lucknow University the other day, the Vice-Chancellor, Rai Bahadur Dr. G.N. Chakravarti, mentioned that, during a recent conversation in London, Mr. Fisher told him that after a careful study of all problems confronting India, he had no hesitation in maintaining that its greatest need was the levelling up to the universities. "He assured me," Dr. Chakravarti continued, "he was not oblivious of the claims of primary education in view of the introduction of representative government in India but he felt that the pivotal education was that imparted in universities, as they supply teachers for secondary schools which in turn should supply teachers in primary schools. Upon the character of University education therefore depended ultimately all education and culture in the country, and he was so earnest and enthusiastic in his opinion that he permitted me to give publicity to it with the *imprimatur* of his great name, so that public opinion may veer round to the support of the universities." We may add that if Mr. Rushbrook Williams had selected Scotland or Germany or the United States, instead of England and Wales, he would have

seen that the number of University students in India is by no means disproportionately large.* Moreover, in England and Wales as well as other countries, there are numerous professional and special institutions outside the universities imparting a high type of education, which absorb large numbers of students, whereas in India, the universities are the only sources of higher education. That, with all their defects, Indian Universities have exercised through their alumni an elevating influence in all walks of life and that their benefits have thus permeated to all classes and communities, has been acknowledged by several eminent Englishmen and Indians who had exceptional opportunities for forming an accurate opinion. "It is almost universally admitted," it was observed in a resolution of the Government of India, 1904, "that substantial benefits have been conferred upon the people themselves by the advance which has been made in Indian education within the last fifty years." With reference specifically to the Bombay University, the late Mr. E. Giles, who was for many years Director of Public Instruction in this Presidency, testified as follows before the Universities Commission, 1902:

> "Finally, I wish to place on record my opinion that the University has done and is doing valuable work, and is producing men who are not only occasionally brilliant scholars, but who are, on the whole, fairly well-educated, well-mannered, and well-conducted. My experience after twenty-nine years is that our graduates are generally men who are fit to be public servants, and to take their place in the various walks of life, that the tendency in the colleges and in the students is towards improvement, and that the University of Bombay is not behind any other University in India either in the efficiency of its management or in the sufficiency of its results."

An even more emphatic testimony was borne by Principal W. R. James, Principal of the Calcutta Presidency College, in his classic book entitled: "Education and Statesmanship in India from 1797—1910" published in 1911. Mr. James wrote:—

> "Not only has higher education not failed to achieve what in 1835 it set out to do, but it has triumphantly succeeded; perhaps it has even succeeded too well. For though its success in training well-qualified candidates for public service is the most direct fulfilment of the original aim and purpose, it is by no means the whole achievement, or even the greatest part of it. Trevelyan writes in the monograph: 'On the education of the People of India', from which quotation has

*The following comparative figures for Japan and India are taken from tables given in the late Mr. W. H. Sharp's "Occasional Report" (1906) on the "Educational System of Japan" (page 494):—

Number of boys of school-going age, of whom one is in the secondary stage:

Japan	36
British India	82

Number of boys of school-going age of whom one is in the higher schools corresponding to Indian Arts Colleges:

Japan	721
British India	1,079

already been made: 'The same means which will secure for the Government a body of intelligent and upright native servants will stimulate the mental activity and improve the morals of the people at large. The Government cannot make public employment the reward of distinguished merit without encouraging merit in all who look forward to public employ; it cannot open schools for educating its servants, without diffusing knowledge among all classes of its subjects.' These predictions have been abundantly fulfilled. The renewed productivity of half a dozen literatures, the revival of art and letters, alert and critical interest in the past history and literature of Indian races (voiced as it was, for instance, eloquently but with unflinching recognition of present *shortcomings*, by Dr. Ashutosh Mokhopadhyaya, Vice-Chancellor of Calcutta University, at this year's Convocation) bear witness to the stimulation of mental activity. The capacity for combination shown by numerous associations for social, literary and recreative purposes is a moral endowment. All these new capacities and powers education has conferred on the classes who have been able to profit by it. The bonds of legitimate aspiration are also herein clearly settled. This education was instituted by the British Government to enable the peoples of India to take a larger and more important *share* in the work of administration. This important share of responsibility and employment has been accorded to them. The process is in mid-career."

With reference to the contention which is sometimes put forward that universal primary education is a greater need of the country than higher education, we may quote the following observations on the subject made by the Vice-Chancellor Sir C. H. Setalvad in his address to the Convocation in the year 1922 :—

"But let us not be under the delusion that universal education alone will make democracy really safe. In speaking of universal education, we ordinarily mean the ability to read and write. We assume that the literate possess a higher intelligence and knowledge than the illiterate. This is not always true. There are many men who have not learnt how to read and write but still possess natural shrewedness and intelligence which enable them to exercise sound judgment. The men who merely read and write but are unable to think for themselves, are sometimes more likely to be swayed by half truths and lies disseminated by the party press and to be led into hasty and ill-considered action. It is thinking that is of greater importance than reading, and reading is necessary only as a means for proper thinking. The people, therefore, in addition to reading and writing, must be taught to reflect and judge. Higher education is, therefore, essential. There is special need of capable and honest leaders, and it is here that the Universities can render inestimable service to representative Government by producing men who, having acquired the habit of clear thinking, and being inspired by wide outlook and liberal ideas, can rise above passion and prejudice and can lead the masses to the right path. The nation needs citizens with proper equipment and ideals and the University can and ought to supply them. This is a function which goes to the root of the welfare

of the State and the State must help the Universities freely and liberally."

30. Specific complaints against the University :— (a) Lack of continuity of policy.

The main complaints brought against the University and those which seem to the Committee in some degree justifiable or at least so current as to require notice are the following. First, it is said that this University has been and is now without a policy or clear conception of its purpose and of the course which it is following : that the want of a definite policy makes it impossible to expect any continuity of action over any length of time (Prof. S. P. Agharkar, No. 152) : that while the University proclaims that one of its chief aims is to introduce Indians to the field of western knowledge and culture, it has not faced that problem of how to harmonise the best elements of that culture with those of Indian culture (Mr. V. B. Naik, No. 67) : that it has not only done little to promote a knowledge of the history and culture of the different communities within the Presidency but has hardly contemplated that as coming within its sphere (Captain S. L. Bhatia, No. 97, Mrs. Sharada Mehta No. 15, Mr. V. G. Ranade, No. 27, Mr. V. G. Bijapurkar, No. 3)* : that the question of concentrating university education in one or a few centres or diffusing it by means of numerous scattered colleges, *i.e.*, the whole question of the future development of the University, has been allowed to be determined by piecemeal and occasional legislation : that it has given no definite, lead on the question of what type or types of University are most suitable for India and this Presidency. We do not think this criticism justified. In the twelfth and thirteenth paragraphs of Chapter II, we have shown that underlying the changes of the past sixty years there are certain lines of policy which the University has followed. A university must adapt itself to changing conditions of life and thought or it will lose touch with reality and lead a people away from the true path of progress. On the other hand a university must not be capricious nor suffer itself to be led by mere turns of fashion. It must respond to the intellectual demands of the community but must also itself direct the community to the intellectual activities and material that are needed to give balance to national character. We do not think that it is fair to say the University has been capricious. The rules made from time to time in the matter of the age qualification for Matriculation are a case of genuine fluctuation of opinion as to means to an end. When the University was founded, one of its chief aims was to direct Indians to the study of western knowledge and this aim it steadfastly pursued. In the twentieth century national feeling is emphasizing the value of Indian culture. The change of emphasis makes clearer the importance of reconciling East and West, but such reconciliation is not a duty which

*It is argued by Mr. Gajjar (No. 23) that such work is hardly the function of the University of Bombay, which should be concerned rather with common ideals and general education on non-sectarian lines : communal universities may develop communal interests and history.

the University can be said to have neglected. Yearly as it passes the students through its varied courses, culminating in a specialised course in Western or Oriental language, literature, philosophy, history, the University is striving to effect this harmonizing process. Again its very refusal to proclaim a policy of concentrating colleges in a few centres is indication of its preference for a policy of diffusion, confirmed by its affiliation of colleges in widely distant places. And lastly, the question what is the type of university most suited for this Presidency is an abstract one to which no definite answer is possible. The form of a university must be determined by the varying circumstances of the people, time and place.

31. (b) That the University is out of touch with the practical needs of the community.

There are other criticisms of this University, some of which are of long standing and have been applied to most Indian universities. That it was for many years out of touch with industry and commerce, and that even after the institution of the B.Com. courses it is not yet adequately in touch with industry and commerce is admitted. This is a serious defect in a university located in one of the greatest centres of industry and commerce within the Empire. That its courses have had too literary a bias is also an admitted fault, shared by other Indian universities, and one which implies a regrettable remoteness from the needs, occupations and practical problems of Indian life. But it is to be remarked that there is no inherent necessity why literary studies should take the student away from the realities of life, and that it is the aim of modern methods of studying literature to prevent this. Were there available a large mass of modern vernacular literature of high excellence, the fault would be less marked.

32. (c) That the teaching of the University has been too preoccupied with instruction in rigidly defined courses and with examinations.

Closely related with these two defects is the fact that the main link between the University and its students has been the prescription of courses and examination of progress in them rather than actual teaching. This is a feature of which critics of the University as it is at present may easily make too much (see below chapter VII). The work of a university cannot be estimated apart from the work of its affiliated colleges. An affiliating and examining university is still a teaching university through its colleges, through the employment of College teachers on its Boards of Examiners and Studies and through the presence of Professors in both Syndicate and Senate. This much, however, is true that college teachers have been in this country far too much absorbed in the laborious duty of teaching large classes and preparing them for examination. Their attention and thought have been concentrated on their undergraduate pupils and diverted thereby from those higher aspects and wider relationships of study that should have brought them into touch with the professions or industries divorced from which study becomes unreal or unfruitful. Did College Professors make more time for

advanced work and had the University a larger staff of Professors engaged in both teaching and research, it is possible that University studies would have not become so dissociated from public, industrial and commercial life and University examinations would have been a more effective and reliable test of students' capacity and attainments for the work of life. This may partly account for the feeling of the Bombay Millowners' Association (No. 30) that the University has "lost touch to a great extent with the real practical needs of the commerce and industries of the Presidency", and that "the present system does not produce the type of men fitted to take up a position of control in trade and industry".

33. (d) A relatively low standard of attainment.

Among business men our graduates do not receive the respect and consideration which is their due because of a suspicion or conviction that the University is satisfied with an inferior standard of attainment. As regards the opinion of business men concerning the capacity of our graduates, it must be borne in mind that the class of graduates on which their judgment is formed does not represent the best or even the general type of our graduates. Owing to the peculiar conditions of commerce and industry in this country and the present stage of their development, the best type of our university men is not absorbed in these departments of life but is attracted to other vocations and professions. In commercial houses where effort has been made to attract the right kind of graduates and offer suitable conditions of service, graduates have been tried and not found wanting. That the standard demanded for entrance is too low is likewise asserted by most witnesses (*e.g.* Capt. S. L. Bhatia, No. 97). It is also affirmed of University work as a whole. "Any abiding knowledge or sound scholarship is an exception rather than the rule," writes Mr. K. G. Joshi, Educational Inspector, Central Division (No. 154). Principal S. C. Shahani (No. 143) names as one of two chief defects "the inadequate regard for excellence of quality". Others complain of the inaccuracy of the students' work and of the absence of business habits. They do not thereby suggest that no sound scholarship or accurate study is to be found but that these essential virtues, namely, accuracy of work and business habits, are infrequent in the average graduate.

34. (e) Narrow scope of University interests.

A further charge is that the University has so far taken a narrow view of its responsibilities and intellectual interests. We have already quoted Mrs. Mehta (No. 15) to this effect. Miss Bahadurji (No. 46) accuses it of insufficient attention to Research, Technical education, Physical education, the improvement of secondary schools, and of total neglect of the education of adults, and of the æsthetic and emotional needs of students and indifference to vernacular literature. These are matters which we admit have so far received little or no serious consideration from the University.

35. (f) Lack of inspiration and enthusiasm in teachers.

Faults, as we have already said, are attributed not only to the University. Teachers and students also come in for criticism. " The undergraduates, with very few exceptions, come to the University ill-prepared, and with very little idea of what University training should do for them, beyond the mere getting of a degree. The professors, though adequate teachers, have not as a rule that idea of their office which alone can get them the moulding influence they ought to possess and exercise " (Dr. Goodier, Archbishop of Bombay, No. 1). It is true that college teachers are too often deficient in the inspiration and enthusiasm which are requisite for really effective teaching : are sometimes inexperienced and not really masters of their subject : are sometimes mechanical and ineffective in their methods : and too often not in sufficiently close touch with their students. The old complaint of too much lecturing and dictating notes is also not without foundation but should be discounted by recollecting that it is in some degree forced on the teacher by the habits or incapacity of the students and that dictation of notes is justifiable in certain conditions. The faults thus admitted, it should be borne in mind, would have to be admitted of a considerable number of individuals in any body of teachers in any country. But such faults are probably not more evident in the Presidency now than formerly, whatever *laudatores temporis acti* may say ; and in general we believe that college teachers give the students the best that is in them. If some are inadequate to their work the blame lies on the College authority that selected and retains them. The Committee would like to call attention to the injury done to students by frequent transfer of professors in Government Colleges.

36. (g) The deficiencies of students.

The charge of lacking high ideals and clear aims is laid at the door of students also. In their case, however, the defect is intelligible and pardonable, since these are virtues that usually develop only in maturity and it is often poverty that makes a student concern himself only with his ' bread and butter '. That the student is not whole-heartedly interested in his studies is often due to the same causes ; or it may be the result of uninspired and mechanical teaching, of a mistaken choice of subject or of an unfortunate prescription of course or texts by the University ; at any rate the cause is more likely to be one external to the student than his own fault. That Indian students have not yet in sufficient numbers been trained to a genuine love for scientific truth nor inspired with genuine zeal for a complete and exact investigation and an accurate result, and that this makes it difficult for them to attain to independence of thought or initiative is a more serious defect (Mr. T. K. Shahani, No. 32 and Mr. K. G. Joshi, No. 154).

37. (h) Complaint of poor discipline.

One witness (Mr. K. B. Marzban, No. 2) speaks severely of the ' rowdyism ' of College students. We think he greatly exaggerates the prevalence of this for there is abundant evidence of the general amenability

of the Indian student to discipline and the incidents that have come to our notice appear to us to spring from the normal high spirit of youth, from an incapacity in some individual teacher, or from the overcrowding of classes which is an undeniable and regrettable feature of some colleges. The need for limitation of the admissions to colleges and insistence on some proportion between the number of pupils and the number of the teaching staff is one of the points to which we wish to draw attention.

38. The lessons of our faults.

What then are the lessons to be reaped from the criticism so bountifully presented to us? First, we think that conditions are not yet ripe in this Presidency for the subordination of the University's educational function to the pursuit of discovery, and that there is some danger lest in the endeavour to build up a reputation as a Research and Teaching University, the less showy but necessary and laborious duty of preparing youth for life be neglected or despised. The University must maintain its cultural aim, endeavour to balance humanistic and scientific studies and to reconcile the eastern and western outlook, the pursuit of the ideal and the practical. It must undoubtedly concern itself directly with teaching and encourage and facilitate research. But this must not be at the expense of colleges or undergraduate teaching. University teaching and University research must be founded on accurate and full knowledge instilled by careful and personal instruction in the colleges. The latter must be recognised as no less important than the former. Secondly we need to get rid of the idea that the science of the west and the lore of the east are imcompatible things and to recognise that the one is the complement of the other and from the synthesis of the two will be generated a higher type of humanity and a better life for man. If this ideal can become general, there will spring up nobler aims and a greater zeal in teacher and student. It is the spirit that animates these that we need to reform, rather than university machinery. Further, the range of University study needs to be widened so that it embraces alike the art and crafts and science of the west, the history, philosophy and faith of the east, and brings them all in due relation and co-operation. By these means University education will be brought into intimate connection with the life, thought and occupations of the country. Again, the University needs to instil, by the emphasis it lays on it, the importance of exactness of statement and knowledge and of independence of thought. Disciplined by truth in that sense our students and teachers will have the initiative and the enthusiasm which are now by some found wanting. And with the change of heart and methods, thus accomplished will vanish many of the physical, social and economic obstacles to the progress of education. For education is the key to the treasuries of science wherein lie charms potent to lay to rest the troubled spirit of society.

CHAPTER IV.

THE SITE OF THE UNIVERSITY.

A.—A proposal to transfer the University and its Colleges to Salsette.

39. Possible sites.

The first of the terms of reference to the Committee raised the question of the transformation of the University into a teaching university. A very brief consideration of that problem showed that one of the University's chief difficulties was its situation at the south end of the island, close to the Fort and business centre, but remote from the residential quarter and from most of the affiliated colleges in Bombay island. The Committee resolved to clear the ground by first deciding whether it was possible and desirable to transfer the University and its colleges to another site where colleges and university could be located so near each other that a scheme of co-ordinated lectures and studies could be devised that would economise labour and make a teaching university easily possible. Such a site too, it was recognised, would render feasible a residential university and so free students and university from the unhealthy conditions of study, residence and living that have so long hampered the progress of higher education. The Committee felt, however, that any new site must be so near to Bombay that an intimate relation between the University and the City could be maintained: otherswise there was the likelihood that the removal of the existing University would be followed by the rise of a new one in the City, in response to an imperative demand that so great a centre of affairs should be also a centre of higher education. The Committee appointed a Sub-Committee to go into the question and investigate available sites. The Bombay Development Department was consulted and suggested sites of which three seemed possible: the Shahar plot east of the Railway near Andheri; a site just west of the Railway at Mandepeshwar, near Borivli; and a site at Juhu. No site on Bombay or Trombay islands seemed suitable. It was estimated that at least 500 acres would be necessary and preferably one thousand. The Shahar site was considered as the most suitable, when all factors were considered, but especially the cost of purchase and development. It was estimated that the cost of land on this site, developed (*i.e.*, including the provision of a main road and a charge for the Kurla-Andheri railway that crosses it), would be Rs. 4,000 an acre and a plot sufficient to meet all needs of the University would cost forty lakhs.

40. The scheme and its cost.

The Sub-Committee then worked out a scheme of transfer and the cost. The scheme was necessarily very hypothetical, for a large number of assumptions had to be made as to the constitution and scope of the University when transferred to Salsette. It was assumed that the University would be the only University in the Presidency, and would be a teaching university, with examining functions and courses much as before, but a system of inter-collegiate lectures: that the Royal Institute of Science, Elphinstone, St. Xavier's and Wilson, the Mahomedan

College, the Secondary Training College with a new practising school, would all be transferred : that all Science would be done in the Royal Institute of Science : that the arts colleges would retain their own identity but be limited each to 600 students : that hostel accommodation would be required for two-thirds of the undergraduates and all post-graduates and women students : that residences for all the staff, and establishment of the University and of all the Colleges would be required : that ample provision must be made for University and college sports and social intercourse. With the help of Mr. Arbuthnot, Executive Engineer, Presidency, a rough estimate of the cost of all this was worked out as follows :—

	Rs.
University Buildings	38,00,000
" Hospital	1,00,000
" Drill Hall	50,000
" Electric Installation.. ..	8,14,500
" Drainage	1,62,900
Cost of site	40,00,000
	89,27,400
Royal Institute of Science	29,88,600
Elphinstone College	21,25,800
Secondary Training College	8,54,800
Wilson College	21,25,800
St. Xavier's College	21,25,800
Mahomedan College	21,25,800
	1,23,46,600
University	89,27,400
Colleges	1,23,46,600
	2,12,74,000

From this total of over two crores there would have to be deducted the amount available for the Mahomedan College and the amounts that might be realised by the disposal of the present buildings and sites of the University and other institutions transferred. These are amounts that are difficult to fix but roughly they were estimated at the following maxima :—

	Lakhs.
University site 21,848 sq. yds. @ 350	75
St. Xavier's " 14,222 " " @ 100	14
Wilson " 14,318 " " @ 50	7
Secondary Training College " 14,400 " " @ 50	7
University Buildings	10
St. Xavier's	7
Wilson	7
Elphinstone College (Part of the building)	7
Mahomedan College (estimated cost)	17
Royal Institute of Science buildings and site ..	25
Total "	176

There would thus be a sum of Rs. 36 lakhs to be found for buildings and site.

41. Inherent difficulties regarding buildings in such a scheme.

At first sight it would seem that the University and colleges would almost pay for their own transfer. But not only are land values at present very uncertain but the value of buildings must depend on their exact fitness to supply the special needs of some capitalist in that particular place. Buildings like the University Convocation Hall, Library and Rajabai Tower would be exceedingly difficult to dispose of. It was suggested to us that Government could adapt them for its Council Hall, but they are hardly suited for that purpose as they stand. No one would buy, or undertake to maintain the Rajabai Tower. If the Law School is to remain near the High Court, only part of the building of Elphinstone College would be available for disposal—unless a new home for the Law School is found. St. Xavier's, the Wilson College and the Royal Institute of Science could no doubt be adapted to various uses and would sooner or later find purchasers. But what price they would fetch is uncertain: and a speedy sale would be essential for such a scheme since the outlay on building in Salsette would be immediate and heavy. It is not unlikely indeed that the estimate of expenditure in setting up the University at Salsette would be greatly exceeded, for the scheme is so vast, the founding of virtually a whole town, that it is certain to involve much that even a careful, to say nothing of a rough, estimate did not foresee. There are also further complications involved. The University, Wilson and St. Xavier's Colleges have received their sites, and grants for buildings, for educational purposes and both site and buildings would have to go back to Government if the conditions of grant cease to be fulfilled. It is difficult to know on what terms the proposed transfer would be arranged by Government. Further difficulty arises in connection with the Royal Institute of Science. That vast building was erected from three donations which are vested in the Treasurer of Charitable Endowments under certain conditions, one of which is that the buildings be erected *in the City of Bombay*. The present buildings could not be sold and the Institute re-erected outside the city without an alteration of the conditions which would presumably require the consent of the donors and other legal formalities.

42. Financial and practical difficulties of the scheme.

On consideration of the financial aspect of the transfer the Committee felt grave doubts whether it would be justified in recommending it. It would involve the expenditure of vast sums of money on buildings and land, which even on the most favourable estimate of the proceeds of an exchange of site and buildings would leave a sum of thirty-five to forty lakhs to be found. Even if all that money could be raised, there would still be very large sums required to meet the additional recurring expenditure which the transfer and the expansion of university activities contemplated by the Committee would involve. It appeared unlikely that it would be possible to include the Royal Institute of Science

in the transfer and the omission of that institution would mean, either each college erecting its own Science Department, or the University setting up its own Science Laboratories, in either case involving a very large addition to the expenditure on buildings contemplated by the scheme. It was not possible to include the Grant Medical College in the scheme because it must remain alongside of the J. J. Hospital. The authorities of the Sydenham College of Commerce and the Law Class maintain that they must remain in the Fort near the business centre and the High Court. The authorities of the Wilson and St. Xavier's Colleges show no liking for the proposal and the Principal of the Wilson College informed us that his College had once already considered and rejected a proposal to migrate. Lastly the proposal would take years to complete and during the period of its execution a great many projects for expansion and improvement would necessarily be suspended, partly because all funds would be absorbed in the transfer, partly because their execution must await the reorganisation resulting from the transfer.

43. Educational aspect : pros and cons of the scheme.

Viewed from a purely educational standpoint the proposal appeared to the Committee equally doubtful. The statement of the educational arguments for and against it printed in the Appendix (No. 3), will show that the *pros* and *cons* are nicely balanced. The *pros* have great force in the abstract but that force diminishes very greatly in the face of the practical objections raised. Moreover it is not absolutely necessary for the University and the colleges to be moved in order to provide suitable residence for the students. Hostels can be erected for that purpose in any part of the island and with the electrification of the railways and the trams, there will be no more difficulty for a student than there is in London. The Committee were also much impressed by the consideration that the University of Bombay must maintain the closest relationship with the City of Bombay if the education it gives is to have a real value and vitalising influence on the community. It cannot lay aside its affiliating function and responsibilities to the distant parts of the Presidency, but nevertheless it must always be also a city university. It must derive a considerable part of its educational power from the variety and complexity, energy and magnitude of the professional, industrial and commercial, municipal and governmental, social and economic, forces and machinery of the city of Bombay. Something of this intimate relationship and consequently something of the University's educational power would be sacrificed by its transfer to a site fifteen to twenty miles from the heart of the city. In particular the University's power to undertake adult education would be obviously reduced if it were removed from the centre of the city, for the bulk of the class who would seek such education would be living within the island of Bombay.

44. Recognition of the inevitability of city universities.

Of recent years too there has been a growing recognition of the inevitability of city universities. The Royal Commission on University Education in London (1913) pointed out (Sec.63) that " it was no accident that all

the modern universities have been established in great centres of population. In these centres are practised to a far greater extent than in rural areas those professions and callings for which the intellectual training given by a university always has been needed. In cities moreover many new occupations have developed which require a highly trained intelligence and which would find no scope apart from the manufacturing or commercial activities of the nation. There is therefore a demand for well-educated young men and women in the cities and parents living and working in them come to know of it. But the conditions which have produced the demand yielded the supply. In the large cities of England the number of citizens qualified to undergo a university training and desirous of having it, if it can be provided at a moderate cost, has been relatively large, because the provision of secondary education, imperfect as it has been even there, is in many cases less deficient than in the country districts. And finally in the cities, where wealth is made and distributed and capital accumulated, it has been found easier to collect the large funds required for the foundation and maintenance of university institutions, in the absence of adequate financial support by the State."

45. Report of the Bombay Development Committee of 1914.

The Committee's attention was also drawn to the report of the Bombay Development Committee of 1914 wherein it is said (Chap. vii, p. xii foll.) that nearly all the witnesses consulted by that Committee were emphatically opposed to a transfer of the University to another part of the island and that that Committee entirely and equally emphatically agreed: "We have ascertained that there has grown up a sentiment in connection with the beautiful buildings facing the Oval which is in itself an asset of no mean value to education if not to civic development. Only necessity of the most convincing character would justify the removal of a university, housed as is the Bombay University, which has succeeded in giving birth to such feeling." The Committee of 1914 did not consider the Colaba Cotton Green a very suitable site for university or college buildings; refused to listen to any proposal to build on the Oval or Maidan; recommended that *reclamation should be undertaken with primary regard to the needs of education:* and further that a re-distribution should be made of various institutions among existing or projected buildings. That Committee's scheme was to concentrate the University institutions between the road to the north of the University gardens and the Royal Institute of Science: to acquire Watson's Hotel and (ultimately) the Sassoon Mechanics' Institute and the Army and Navy Stores and to utilise these, together with the Secretariat, for various University institutions. The Government Secretariat, Council Hall and others, they suggested, should be placed in the new buildings on the new reclamation.

46. Conclusion.

If the only argument against a transfer of the university from its present site had been the sentimental objection made by Sir Claude Hill's Development Committee of 1914, we should not think it right that such a

feeling should be allowed to stand in the way of a great scheme like this. But the objection, which is not without weight in itself, added to the weighty, practical and educational difficulties we have already mentioned, and to the uncertainty of the financial aspect of the scheme, seemed to us to tip the balance decidedly against it, and we are unable to recommend its consideration.

B.—A Scheme for concentration of the University round its present site.

47. The Concentration Scheme.

The scheme of transfer being rejected, it seemed necessary to find another scheme which, by concentrating university institutions, would render possible the conversion of the University into a teaching university, the expansion of its activities in other directions and the improvement of the condition of students' residence. Sir Claude Hill's Development Committee of 1914 proposed, in connection with the small reclamation then contemplated, a concentration of the University round its present site by the acquisition of various buildings. That proposal seemed to the Committee to offer an alternative worth reconsidering, now that reclamation on a much larger scale was actually being carried out, and while the final disposal of the reclaimed land had not been made. The plan seemed the more feasible in that a portion of the reclaimed area has actually been reserved for educational institutions. But the University appears to us to be in need of not only concentration but also of expansion and we think that to satisfy these needs it will be necessary to go further than was contemplated by the Committee of 1914. We would like to see as many of the existing colleges in the island brought into such close neighbourhood to the University buildings as will render it easy to arrange a scheme of co-ordinated lectures and studies that will economise lecturers and staff of both University and colleges and make all teachers and students in Bombay realise that they are members of one corporate body. We suggest accordingly that a considerable portion of the space between the Fort and Colaba and the sea be reserved for a Bombay University quarter. The grounds on which such a policy of concentration rests are set forth (*mutatis mutandis*) very fully in Part II, "*The Essentials of a university in a great centre of population*" (Sections 102-3) of the Report of the Royal Commission on University Education in London (1914). We have printed these paragraphs *in extenso* in the Appendix No. 4 and we give here only their gist. There is really no geographical problem connected with this centralisation of teaching in the case of whole-time day students. The creation of a university quarter would lead to economy in administration, to increased co-operation between different departments of study in the interests of new lines of work, to greater intercourse between students and between teachers, and it may be hoped it would also lead to a better public understanding in Bombay of the University and its work. The University would begin to awaken general interest and this interest would be followed by greater private and public support.

48. Practical difficulties and how to overcome them.

If this scheme of concentration is to be carried out, we think that all colleges that can possibly be moved should be brought to the University quarter. The Secondary Training College must remain near its practising school and the Grant Medical College near its hospital. But the Wilson, St. Xavier's and Sydenham Colleges could all be moved. The Wilson as the furthest is the most urgent problem. We consulted its Principal who was very guarded in his answers and not very favourably disposed to the suggestion. His chief difficulties were the separation of the College from its schools and from the centre where the College Mission has established its work and influence and some uneasiness lest the University should encroach upon the freedom of the College. We believe that when he comtemplates more closely the scheme in detail and when he finds that other colleges are also to be thus concentrated, he will be more disposed to approve. In the case of none of the three colleges mentioned does there appear an insuperable objection, provided that the two aided colleges are not required to meet the cost of the removal.

49. Details of the Concentration Scheme.

The details of our scheme are as follows :—

(*i*) The University should acquire the buildings between itself and the Royal Institute of Science.

(*ii*) Government should transfer to university purposes the Sailors' Home which we understand is likely soon to be vacated by the Naval authorities.

(*iii*) Any portion of the Museum site that may not be required for the Museum should be offered to the University for University purposes before being allocated for uneducational purposes.

(*iv*) The University institutions should then be arranged as follows :—

(*a*) University Library and Convocation Hall to be used as at present.

(*b*) the North Wing to be used for the University Offices, Committee rooms, etc.

(*c*) On the space between the North Wing and the Library to be erected a building to hold a Students' Union containing debating hall, reading room, Students' library, refreshment room. The top floor of this building to contain a flat for the University Rector (see below paragraph 185, x.)

(*d*) The South Wing to be used for University Lectures, University Training Corps Office, and examination halls.

(*e*) The Sailors' Home to be converted into a Post-graduate School of the University, providing University Professors'

study rooms, class rooms and special libraries, etc., for post-graduate students. The quarters of the Superintendent of the Sailors' Home to be the quarters of the University Registrar: quarters could probably also be provided for the Assistant Registrar or Secretary of the School Leaving Examination Board.

(*f*) The Oval Maidan should be reserved as sports ground for (1) the University, and (2) Elphinstone, (3) Wilson, (4) St. Xavier's, (5) Sydenham, (6) Mahomedan and (7) Grant Medical Colleges, with a running track round all.

(*v*) The Secretariat when vacated by Government should be converted into a college for either the Wilson or St. Xavier's College.

(*vi*) The Government Record Office when vacated to be divided between Elphinstone College and the Government Law School so as to supply them with quiet class rooms and room to expand. As it is proposed to limit the number of students in a college to 600, Elphinstone College would have to provide for at least 200 more students.

(*vii*) Watson's Hotel to be acquired and the Sydenham College of Commerce to be accommodated in a new building on the site.

(*viii*) Sites be reserved on the Cooperage or the Reclamation, within one mile of the University, for the Mahomedan College and Wilson or St. Xavier's, whichever does not occupy the Secretariat.

(*ix*) On the Cotton Green, Colaba, the following hostels should be erected:—

(1) Hostels for Wilson College,
(2) „ „ St. Xavier's College,
(3) „ „ Sydenham College,
(4) „ „ Post-graduate students,
(5) „ „ Women students,
(6) „ „ Royal Institute of Science,
(7) „ „ Mahomedan College.

(*x*) A drill hall should be erected on Colaba Cotton Green for the University Training Corps parades in the monsoon and University Training Corps Offices.

(*xi*) The Army and Navy Stores building and Sassoon Mechanics Institute should be reserved for University purposes. The Mechanics Institute would better serve the purpose for which it was founded if it were transferred to Parel or Byculla.

50. The cost of the scheme.

12. The financial cost of this scheme is not easy to estimate but would appear from rough figures supplied by the Executive Engineer, Presidency, to be roughly as follows :—

		Rs.
Cost of site and building of Watson's Hotel ..		9,00,000
Building for Sydenham College		5,00,000
Building for University Union and Rector's quarters		3,00,000
Conversion of Sailors' Home		1,00,000
Conversion of Secretariat to College		1,00,000
Conversion of Record Office		50,000
Site for Mahomedan College		1,50,000
Building for Mahomedan College		10,00,000
Site for Wilson or St. Xavier's		1,50,000
Building for Wilson or St. Xavier's		10,00,000
Sites for Hostels mentioned below		5,60,000
Building for Hostel for Wilson College 400 students		4,50,000
Building for St. Xavier's Hostel, 400 students ..		4,50,000
Hostel for Mahomedan College, 400 students ..		4,50,000
Hostel for Sydenham College, 100 students ..		1,50,000
Hostel for Royal Institute of Science, 100 students.		1,50,000
Hostel for University Post-graduate students, 100.		1,50,000
Hostel for Women students, 100		2,00,000
Drill Hall site		1,00,000
Building for Drill Hall		50,000
Total ..		69,60,000
Deduct for St. Xavier's present site	14 lakhs.	
Deduct for St. Xavier's present building	7 ,,	
Deduct for Wilson present site ..	7 ,,	
Deduct for Wilson present building ..	7 ,,	
Deduct for Sydenham College present site and building	8 ,,	
Deduct for Mahomedan College Building Fund	17 ,,	60,00,000
	60,00,000	
Total net cost ..		9,60,000

51. Mr. K. Natrajan's view.

Mr. K. Natrajan wishes it to be noted that he has considerable hesitation in acceding to this part of the Committee's recommendations. He thinks that the proposed concentration of colleges in and around the present

University site is not necessary for the future development of the University; that whatever sums are needed for the purpose would be better spent in expanding the post-graduate side of the University; that if there is to be concentration, the area proposed is not suitable for the purpose; that even if the proposed site is considered suitable, it would be desirable to extend it so as to cover a radius of at least a mile all round; and that under this arrangement, St. Xavier's College may remain where it is and only the Wilson College will have to be shifted. Mr. Natrajan further wishes it to be placed on record that it is not intended to ban the starting in the future of Arts Colleges in Bombay City beyond the limits of the University area, and that each such proposal will be considered entirely on its merits, and will not be prejudiced by the present proposal.

Note A.

By Mr. Mirza Ali Mohammed Khan.

I am against the concentration of colleges in the Fort. I consider the Fort to be unsuited for such a purpose. I agree with much of what is urged by Mr. Natrajan in paragraph 51 but disagree with him on the question of the transfer of the Wilson College from its present quarters to the Fort. The Committee have definitely recommended that the University should undertake to teach only the post-graduate courses. If the concentration is to be effected merely to secure co-ordination of study and work at the B.A. Honours Examination, then the benefit is not commensurate with the great expenditure and inconvenience that this scheme will involve. I am strongly against the removal of the Wilson College from its present quarters where it has been since the year 1889. There are cogent reasons why it should remain where it is. Some of them have been stated by the Principal of the College in his evidence. There are other grounds as well. The Committee do not appear to have given sufficient weight to the fact that having regard to the present facilities of transit it is not necessary that the colleges should be removed as proposed by the Committee.

I am also against the Sydenham College being accommodated on the site of Watson's Hotel. As for the Hostels, the present Wilson College Hostels are within the College compound and one of them is across the road. The discipline in the Hostels is maintained by one of the members of the staff staying in the Hostel and the Principal's residence being in the compound of the College. This last advantage will cease to exist if the proposal of the majority of the Committee is adopted.

Under the proposals of the Committee there is no room for expansion.

As for the proposal to locate the Mahomedan College on the Cooperage, I take it the public of Bombay will have something to say about it. The Cooperage is one of the few open places in Bombay and is one of the most popular evening resorts we have in this City. The alternative proposal to have the Mahomedan College on the reclamation site would involve a considerable delay in starting the College which delay is inadvisable. It may be possible to locate it at the Sailors' Home. I think it will be better if the College remains at Andheri and becomes the centre

of a University Settlement round about which future Arts Colleges may be located.

The Secretariat buildings and any building that may be built in the compound of the Museum may be used for purposes of post-graduate studies. If my view is accepted, it will *pro tanto* reduce the financial burden.

MIRZA ALI MAHOMED KHAN.

CHAPTER V.

ADDITIONAL UNIVERSITIES IN THE BOMBAY PRESIDENCY.

52. The Reference.

The second term of reference to the Committee was, " to investigate the relations between the University and its affiliated colleges both in Bombay and in the mofussil and to consider whether it is desirable and feasible to institute other universities at mofussil centres."

53. Relation of the University to its Colleges.

There are twenty-five colleges affiliated to the Bombay University of which eighteen are arts colleges, and seven professional colleges. In Bombay island there are four arts and three professional colleges, in the Central Division six arts and three professional colleges, in the Southern Division one arts college, in the Northern Division and Kathiawar States five arts colleges and in Sind two arts and one engineering colleges. The University has affiliated no institution in Technology, the Fine Arts or Veterinary Science. Affiliation is granted when the University is satisfied by inspection that the conditions laid down by the Act are fulfilled. The terms of affiliation vary slightly with each college. The older colleges are affiliated in all branches of arts and are not restricted in the number of students admissible : the newer are affiliated in specified branches of arts and science for specified examinations and usually the maximum number admissible to each class is defined. The University, however, in no case has defined the proportion of teachers to students that is to be maintained. Colleges are either first grade, *i.e.*, permanently or provisionally permitted to teach the full undergraduate and post-graduate course : or second grade, *i.e.*, restricted to the first two years' courses. There are only two second grade colleges, the Nasik and National College, Hyderabad (Sind), for it has been the policy of the University to encourage second grade colleges to develop into first grade. Affiliated colleges contribute nothing directly to the funds of the University. A resolution passed by the Senate in 1921 that every college should contribute Rs. 300 a year to the University was rescinded within a year on the ground that it was an unnecessary burden on the colleges. The University on the other hand makes no contribution to the funds of colleges. Control over the colleges by the University is maintained by a triennial inspection, and ultimately by the power of disaffiliation, an extreme measure, however, which has never been taken. Deficiencies in a college come to the notice of the University through inspection reports, the reports and mark-lists of examiners, annual returns of college staff and of the results of the colleges' First Year Examination and casually by complaints addressed to the Syndicate or through the personal knowledge of Syndics. Such deficiencies are brought to the notice of college authorities by circulation of the reports of inspection committees and examiners or by letters from the Syndicate calling for explanation or remedy.

54. Representation of colleges on University bodies.

It will be evident from the above that the control by the University of the colleges is a loose one and that the latter are given great freedom with regard to their internal management. The main links between the University and the colleges are first the original affiliation, secondly the triennial inspection, thirdly the prescription of the college courses of instruction by the University through its Boards of Studies, fourthly the regulation of students' attendance by the University, fifthly the University Examinations, and sixthly the representation of college authorities on the Senate and other University bodies. It is through the first five that the University controls the Colleges. It is by the methods and the spirit with which the colleges lead their students through the prescribed courses and equip them to answer the University tests that the colleges react on the University. And it is through their representatives on University bodies that the colleges can directly influence University policy. The existing University Act and regulations do not secure such representation to every college, much less a representation proportionate to its size or efficiency. Moreover, colleges at great distance from the University obviously cannot make so much use of any representation they may secure as those that are within easy reach. As the representation of distant colleges involves the University in heavy expenditure on travelling allowance, there is a natural tendency for the colleges of Bombay and Poona to have more representatives than others. This is felt as a grievance by distant colleges and constitutes one of the reasons why the demand for a division of the University has arisen.

55. The grounds on which additional universities are asked for.

In Appendix No. 5, we have printed a summary statement of the arguments used by various witnesses for and against a division of the University of Bombay. Some of these are debaters' arguments brought forward to meet specious contentions of opponents. We need here only dwell on those which evidence a well-grounded demand or present real difficulties. On the one side it is with great force contended that the affiliating type of University must continue in this country of great distances and small towns, and that the smaller the area of such a university's jurisdiction the more effective its control over, and the more intimate its relation with, affiliated colleges. Secondly, a single Presidency university cannot easily pay careful heed to and develop diverse local interests and cultures. Bombay has too great a multiplicity of interests, above all is too deeply concerned in commerce and industry to be a good guardian of Maratha history, or Gujarati literature. A local university would be inspired by, and would foster enthusiastic interest in, local conditions of life and thought, past and present. The Bombay Presidency consists of five areas distinguished by differences of language, race and even to some extent geographically; and if a separate university could become the educational and cultural centre of each, a much more rapid development of vernacular language and literature

would be attained. The use of the vernacular as the medium of instruction and even examination would be possible and that, it is urged, would make intellectual progress easier and more rapid. It is also claimed that local universities would make education less costly to the student and its administration more economic and effective. (This last claim is doubtful if we consider the multiplication of university agencies.) More important is the argument that there are other forms of university organisation than the affiliating and that some of these are free from the special disabilities of the affiliating type and on trial are likely to prove valuable agencies for development of higher education in special conditions. The University of Bombay can never be wholly residential: yet a residential university has distinct advantages. A unitary university would be peculiarly suited to a small centre or to a limited, well defined geographical or linguistic area with undeveloped but potential cultural interests. Lastly, in the development of advanced or post-graduate study where the number of students is small and the cost of teaching heavy, the existence of local universities would be helpful. If all post-graduate education is concentrated in Bombay, it becomes expensive to the mofussil student and divorced from local interests and materials of study; if post-graduate work is carried on at various local centres under the control of the University of Bombay, the supervision, control and provision is likely to be inadequate and the conditions of work awkward.

56. The arguments against additional universities.

These are claims the force of which cannot be gainsaid. On the other hand there are weighty objections of principle and practice. Of these the most strongly urged is that local and linguistic universities will be 'provincial' in the worst sense of that term, narrow in outlook and governed by racial, commercial or linguistic prejudices to an extent that is not possible in a cosmopolitan university like Bombay. Instead of proving strongholds of national culture and national unity, universities may become centres of disruptive forces, centrifugal if we regard India as a whole. Nor will these local universities, it is said, be really much more homogeneous than Bombay, unless there is to be a separate university for each district town. The colleges at Sangli and Kolhapur, as we learn from the statements of witnesses, would prefer to be affiliated to Bombay rather than Poona. The Northern Division contains colleges maintained by Native States and it will be necessary to induce them to accept the jurisdiction of any less important centre than Bombay. The division of the Presidency into five linguistic areas each under the jurisdiction of a separate university will not get rid of the drawbacks to which the affiliating University of Bombay is liable but will create five centres labouring from similar difficulties and without the cosmopolitan character and aloofness which places Bombay to some extent above communal antagonisms. Yet if the new universities, in the desire to avoid the difficulties created by the affiliating system, assume a purely local, unitary residential form, they run even greater risk of becoming limited in outlook and they will rest on a much narrower

foundation of popular support. It is open to question whether any mofussil centre, except Ahmedabad, has the resources derivable from the locality required for the adequate establishment and maintenance of a university. That suggests another risk that there will be dangerous competition between the various universities for the financial support of the public and for the enrolment of students. This might lead to a lowering of standards and a bartering of university dignities (whether honorary degrees or merely seats on the Senate) for donations and endowments. Lastly, it is argued that the quintuplication of expenditure on university organisation, administration and buildings involved in five new universities can only be justified by certainty that it is necessary and that greater benefits will follow from this than from devoting the money to better equipment of existing colleges or institution of new ones.

57. Additional universities will ultimately be necessary.

That all the five additional universities are an *immediate necessity* in this Presidency can hardly we think be conclusively proved. The number of students of the Bombay University is only one-third that of Calcutta and less by 50 per cent. than the number at Madras. The numbers appearing at the Bombay examinations of 1924 were : Matriculation 7,462, First Year Arts 3,636, Intermediate Arts 1,872, B.A. 873 : B.Com. 48, B.T. 60, B.Sc. 177, B.Ag. 68, B.E. 76, LL.B. 320, M.B.B.S. 308 and the corresponding intermediate examinations 2,079 (*vide* Appendix No. 9). Only in the case of the Matriculation examination can the numbers be said to be already really unwieldy (at the London Matriculation of 1919 there were nearly 3,000 candidates). But the numbers are rising each year and the organisation is becoming yearly more difficult, as it becomes necessary to open more centres, while the introduction of the vernaculars as media of examination will further complicate the problem. If they do not now, then in a few years, the number of examinees may constitute a good ground for division of the University. On the other hand a higher standard of admission and stricter examination at the First year and Intermediate examinations would weed out many unfit students from the most unwieldy classes. The number of university institutions in this Presidency again is only 25 against 49 at Calcutta, 73 at Madras, 35 at the Punjab and Allahabad universities. But the number of colleges has been risen rapidly of recent years and even now there are proposals on foot for several more. Further some of these institutions and many registered schools are situated at very great distance from Bombay and inspection of the colleges and schools by the University is a difficult and expensive business.

58. The need of a substantial financial provision.

A great difficult presented by the institution of additional universities is their finance. Any new university that is set up must be such as to command the respect of India and the world by the qualifications, achievements and character of its governors and its teachers. Adequate salaries will have to be provided for the staff. While ornate buildings are not

necessary, a university should be housed in a fashion that is in accord with the high seriousness of its function and will win and hold the respect and veneration of its alumni. All proposals for a university should be accompanied by some scheme under which proper financial provision will be made for the purposes of the University.

59. Four new universities will ultimately be necessary.

We have considered very carefully the general question whether there is need in this Presidency of one or more new universities. We have finally decided that, it is in the interest of the development of higher education that new universities be created in the principal natural divisions of the Presidency, Maharashtra, Gujarat, Karnatak, Sind, when conditions at those centres are ripe. In arriving at this decision two considerations weighed heavily with us, first the belief that there was need of a wider diffusion of higher education through the Presidency and that decentralisation of the University and the institution of additional colleges suitably equipped at a variety of centres would materially hasten the diffusion, each college becoming a centre wherein culture would filter through the surrounding district. The increase in the number of students and colleges was felt to support this consideration. Secondly, we are impressed with the need of developing interest in the study of local culture, literature, history and conditions of life and feel that this could best be done by local universities. We do not think that there is much real danger of such universities becoming centres of disruptive or centrifugal forces as the new universities will be associated with wide areas such as we propose. For, as has been pointed out, those areas are not absolutely homogeneous and there will be sufficient variety to balance one-sided tendencies. Further, the existence of a greater racial and linguistic unity would give to studies a solidarity and identity of purpose and methods which would be of the greatest benefit. The establishment of new universities in the four natural divisions of this Presidency should be viewed not in the light of a concession to the demand which now exists or may arise hereafter for such universities by the people of those divisions. It should be regarded as the natural and necessary consequence of the pioneer work of the Bombay University during the last seventy years. We have now reached a stage in the expansion of higher education in this Presidency at which the parent University of Bombay should no longer be left to grapple single-handed with the problems which present themselves with greatly increased magnitude and complexity. We therefore regard the establishment of these divisional universities, the first of which, we propose, should be a university for Maharashtra with its head-quarters at Poona, as a principal and organic part of our scheme for the future development of the Bombay University.

60. What centres are ripe for new universities?

The Committee then set themselves to determine which of these natural divisions could be said to be ripe for the institution of a university. The conditions of ripeness in the abstract appear to be :—

(*i*) a considerable degree of intellectual activity in the area ;

(*ii*) the existence of a vigorous public demand ;

(*iii*) substantial evidence that the demand would receive active support in endowments and donations and the help of influential persons;

(*iv*) numerous undeveloped fields of investigation;

(*v*) numerous students;

(*vi*) men with capacity, academic interests and leisure to administer a university with success and to make it a source of lasting intellectual stimulus and an institution commanding the respect of established universities;

(*vii*) the absence of adverse conditions seriously militating against success.

The Committee first discussed the case of Poona and the Maharashtra area. This is dealt with in the next chapter. Having decided to recommend an affiliating university at Poona, the Committee discussed the other areas and agreed that none of the three could be considered, on the evidence furnished, to be ripe as yet. At Dharwar, there was not sufficient evidence of any real demand or financial support. As for Ahmedabad, the Committee feel that sufficient evidence was not put before them as regards any wide-felt demand or financial support for a university of the nature that the Committee is considering. As regards Sind, we are agreed that the geographical, agricultural and industrial circumstances of that province point to the desirability of establishing a university at Karachi. It does not appear to us that the University of Bombay will suffer any material loss by this, though Sind may lose much by severing its connection with the University of Bombay. But the loss we think may be compensated by the greater opportunity it will get to develop its own local interests and to direct its own intellectual destinies. As yet, however, there has not been sufficient evidence that the first three conditions of ripeness named above are fulfilled or that a self-governing university of Sind will at present establish and maintain a pursuit of genuine scholarship. If once determined expression is given by cultivated and influential Sindhis of varying classes to a clear demand for the institution of a new university in that province, and provided that the demand is supported by financial guarantees and evidence that there are sufficient men of academic interests willing to devote themselves to its maintenance at a high level of scholarship, we think that the demand may be granted. If granted, Karachi must obviously be the university centre.

Note B.

By Mr. M. R. Jayakar on a University for Gujerat.

As for a University for Gujerat, I am of opinion that there is no harm in recommending that permission may be given to start a university there subject, of course, to the considerations urged in our Report. I think that, though conditions in Gujerat may not be on a par with those in Poona, the beginnings of a University can be safely made there.

M. R. JAYAKAR.

I agree.

FAZULBHOY CURRIMBHOY.

CHAPTER VI.

A NEW MAHARASHTRA UNIVERSITY AT POONA.

61. A university in the Maharashtra area would be advantageous to education.

In the concluding paragraph of the last chapter we stated that the Committee were agreed that a case had been made out for setting up some form of university in the Maharashtra area. Poona is the centre of Government in the rains, and at all times a centre of educational, intellectual, social and political activity. There are at Poona three arts colleges, three professional colleges, a medical school, institutions for oriental and economic study and the Indian Women's University. In Maharashtra there are three other colleges, at Sangli, Kolhapur and Nasik. In Poona we know that there is a considerable number of active, influential and able men desirous of carrying out this project and willing to devote thought, time and trouble to its institution and maintenance. That there is ample scope and material for study and investigation is well known: we need only instance the recent proceedings of the Indian Historical Conference at Poona as evidence. The students that come to the Bombay University from the Maharashtra district are estimated at about one-third of the total. There can be no doubt that, given a proper organisation and constitution, suitable men would be forthcoming to sit upon its Senate and Syndicate and administer it with success. There are, however, two conditions of the ripeness of this area for a university about which some doubt and difficulty arises: the form which such a university is to assume in order to be a success and the provision of the funds that are requisite to establish it. Assuming proper financial provision and a suitable constitution accepted loyally by those concerned, we think that there is no question that a university in this area would be advantageous to higher education in the area and that it would be a valuable co-adjutor of the University of Bombay in its high mission of light and culture in this Presidency.

62. Diversity of views as to its constitution.

The first question is with regard to the form the new university should take. The Committee feel strongly that if a university is to be created in this area and be a success, there must be substantial agreement about the general form it is to assume and the lines of its development. It would considerably hamper its working if it were distracted from the outset by division of opinion and effort as to its administration and its constitution. The evidence placed before the Committee, however, made it clear that there was diversity of opinion and conflict of views and interests among the educationists of the Maharashtra area. While all agree that Poona must be the site of the University, there are two main views of the relation of the Poona University to the Maharashtra area. One set of witnesses, of whom Dr. Paranjpye and other prominent members of the Deccan Education Society are respresentatives, desire that the jurisdiction of the Poona University should be limited to an area of about two

miles radius from Poona City, institutions outside this limit remaining affiliated to the University of Bombay. The other set would have the jurisdiction of the new university extend over the whole of Maharashtra and the Karnatak or at least over the Marathi-speaking area, colleges within the area of jurisdiction being affiliated, not to the University of Bombay, but to the new university. There are other differences of opinion with regard to other features of the new university within each of these two groups of witnesses.

63. Dr. Paranjpye's scheme for a unitary university.

The scheme put forward in the course of discussion by Dr. Paranjpye for a purely local, unitary, teaching and residential university of Poona is roughly as follows. (Dr. Paranjpye was called away to attend other committees before he could put the scheme on paper.) The existing Fergusson and New Poona Colleges should be incorporated in a university of Poona as *constituent* colleges teaching through their present staffs a pass B.A. course of two years' duration. The teaching of B.A. Honours courses and all post-graduate courses should be not only controlled but actually conducted by the staff of the new university. These B.A. and post-graduate courses would be in accordance with new syllabuses drawn up by the new university. The teaching staff of the university would, to begin with, be selected from the most eminent members of the existing staffs of the constituent colleges and would work on the same self-sacrificing basis as members of the Deccan Education Society have hitherto done, *i.e.*, they would accept salaries much below the rates usually awarded to university professors. The entrance qualification to constituent colleges would be either a pass at an examination to be conducted by the new university and of the same standard as the Intermediate examination of the University of Bombay, or a pass at the latter examination. Previous to admission students should have attended an Intermediate college during a four years' course covering the present sixth and seventh High School standards and first and second year university courses. The vernacular would be the medium of instruction in schools and Intermediate colleges: English the medium in university colleges. All university students should reside in college hostels or licensed lodgings. The Deccan College would only be admitted as a constituent college if transferred to the university area: otherwise it should become an Intermediate college or a public school. Besides the two constituent colleges already mentioned, the Poona Law and Medical schools and Agricultural and Engineering colleges should be the only affiliated or associated institutions of the university. Other details and suggestions will be found in the printed evidence of the Deccan Education Society (No. 62). Prof. K. K. Joshi of the Fergusson College (No. 66) would reduce the Fergusson and New Poona Colleges to Intermediate colleges and have *all* B.A. and post-graduate teaching conducted by the new university.

64. Objections to Dr. Paranjpye's scheme.

The supporters of this scheme claim for it that it introduces a new and desirable type of university free from the disadvantage of the

affiliating type, and that this type of unitary, residential university is that which is being everywhere adopted in instituting new universities, *e.g.*, at Manchester, Reading, Dacca, Lucknow. It is a type which undoubtedly secures much closer relations between student, teacher and university and guarantees a more healthy physical life for the student. It would provide the university with a generally homogeneous body of students and relieve it of much of the difficulty of reconciling the conflicting views and interests that prevail throughout Maharashtra and the Karnatak. The scheme naturally finds support from the educationists of Maharashtra and the Karnatak who do not desire those areas to be affiliated to Poona but do not wish to stand in the way of the aspirations of Poona. The colleges of those areas left to the University of Bombay will be in no worse position than before and perhaps might secure more attention when Poona is separated. All this the Committee readily admit. But there are considerations which in our opinion weigh heavily against this scheme. In the first place it seems to us that its advantages will be limited to Poona and perhaps even there to serving the interests of the Fergusson and the New Poona College and not of Poona as a whole, still less of the area which Poona is understood to represent. The claims and interests of the oldest Poona College, the Deccan College, are ignored, and it is somewhat callously proposed to cut short its historically interesting career and reduce it to a school or second grade institution. The Bombay University is left unrelieved of any of its heaviest responsibilities in the distant Karnatak, while Poona shoulders hardly any of the responsibility that naturally falls to it in respect of collegiate education in Maharashtra. There is little to distinguish the proposed university from the present conditions of collegiate education in Poona. It is not proposed to erect any university buildings for the present and there are none available. A system of inter-collegiate lectures would do all that the new university proposes to do. The constitution proposed merely gives to selected members of collegiate staffs the name of University Professors and since the salaries proposed are low it will not be possible to recruit to the university distinguished teachers from outside Poona. A university whose staff is recruited from a close preserve and on such terms is not, we fear, likely to command the respect of educationists or the outside world. The appearance of raising the standard of admission to the Intermediate level is illusory. The institution of Intermediate colleges will probably mean no more than that the first two years of the university course are crushed down into a purely school environment. There is no suggestion from what source the staff of these Intermediate colleges is to be drawn, nor how they are to be financed. We do not find fault with the type of university that is suggested in this scheme. But we are unable to adopt the scheme because we do not think it supplies any adequate solution to the problem of the University of Bombay and higher education in Maharashtra and because we do not find that it has obtained such support locally as to make us think that the experiment it involves would have a chance to succeed.

65. An affiliating university at Poona.

Those who desire to see an affiliating university established are divided in their counsels. In the first place, while they agree that Poona must be the site of the university, they differ as to the area that should be placed under the jurisdiction of this University at Poona. Mr. Lathe informs us that the people of the Karnatak are unanimously and very strongly opposed to the Karnatak being transferred from the Bombay University to a Poona University, and this is substantiated by the evidence of witnesses. The grounds of the objection seem to be first and foremost that the language of the Karnatak is not that of Poona: and secondly longstanding sentiment of communal or sectional origin. In the second place difficulties are created for them by the Willingdon College, Sangli, and the Kolhapur Native State College. The Sangli College is on the borders of the Kanarese and Marathi-speaking peoples and 40 per cent. of its students are Kanarese. The Principal would prefer to remain under Bombay. The Kolhapur College, we are told, has the same preference, the grounds for which are well known. In the third place two schemes for an affiliating university are put forward, one for a university combining features of both the teaching, residential type and of the affiliating type. This is suggested by the Shikshana Prasarak Mandali (No. 71) (*vide* Appendix No. 6), and certain of the New Poona College staff. Secondly, a purely affiliating university of the type of Bombay University is proposed by the Shiksha Vichar Mandal (No. 56) and the Bharat Itihasa Samshodhak Mandal at Poona (No. 132). We deal with the combined type first.

66. A University combining constituent and affiliated colleges.

It must be premised that the Shikshana Prasarak Mandali would prefer a teaching university composed only of constituent colleges; the type of university comprising both constituent colleges in Poona and affiliated colleges outside is only put forward as a "second-best" alternative. The latter scheme involves a teaching residential university in Poona and affiliated colleges in Maharashtra and (if willing) the Karnatak. In Poona it is proposed that the *present* buildings of the Deccan College should be handed over by Government to the Poona University for its university halls and offices. The Deccan College should be removed to a new site near the Fergusson and New Poona Colleges, and provided by Government with new buildings. These three colleges with the Agricultural and Engineering Colleges would be the constituent colleges of the University. In the Colleges instruction only up to the pass B.A. would be given; Honours and post-graduate courses would be taught by the University. For post-graduate work other institutions also, such as the Bhandarkar Oriental Research Institute would be recognised. The entrance qualification would be fixed at Intermediate level: work below that level would be entrusted to some twelve selected High Schools which would become a kind of Intermediate College or Collegiate High School. Affiliated colleges would teach only up to the Pass B.A. The question of the medium of instruction would be decided by the Senate of the Poona University.

67. Objections to the combined type.

This scheme does endeavour to relieve Bombay of some part of its responsibilities, and includes the Deccan College in the new university. It tries to combine with these advantages those of a residential teaching university. It presents certain difficulties. It involves the affiliation of unwilling colleges or else the continued affiliation to Bombay of Colleges that more naturally fall within the jurisdiction of Poona. It places the colleges of the new university in a double relation to the university, and experience elsewhere shows that such twofold relationship is likely to beget inequality of treatment and consequent jealousy. If, as in this scheme, external colleges were limited to teaching the courses of the Pass degree, to the exclusion of courses above or below that level, it is difficult to see how such colleges could be financially sustained. There is a very great probability that such external colleges would soon be pushed or drop out of existence.

68. The purely affiliating type.

There remains the purely affiliating type approved by the Shiksha Vichar Mandal (No. 56) and the Bharat Itihasa Samshodhak Mandal (No. 112). The latter would restrict the jurisdiction of the university to the Marathi-speaking area. The difference between this type and that described in paragraph 66 is that in it all colleges are in principle on an equal footing in their relation to the university. Under this scheme there seems no reason why affiliated colleges outside Poona should not continue to flourish. Each college would be teaching the full pass and Honours B.A. course though the university might reserve to itself and certain other institutions the right of post-graduate teaching. In the scheme of the Shiksha Vichar Mandal the Deccan College becomes a post-graduate institution of the University, supplying the University buildings and, in concert with other affiliated colleges, the university teaching staff. Assuming that the Nasik, Sangli and Kolhapur colleges were willing, the scheme would constitute a natural development or off-shoot of the parent university: the new university would relieve Bombay of a large share of the burden of higher education: would be representative of a homogeneous section of the Presidency, and of a numerous but backward people and its language and culture: and would be capable of expansion into a university that would carry weight and win respect throughout India and abroad. The Karnatak would be excluded on linguistic grounds and though this district might seem thereby cut off from Bombay, it would really be no worse off than before. The example of Poona would certainly stimulate a similar movement from Dharwar.

69. The Committee's recommendations.

The Committee has had great difficulty in arriving at a choice between the three types outlined above in the face of the great diversity of opinion among those most interested in the establishment of a new university. After long discussions the Committee has concluded:

(*i*) That if a university is to be established at Poona, it should be an affiliating one, but one with substantial teaching functions, and that all existing colleges of Maharashtra must be affiliated to it, while High Schools in Maharashtra which desire to be recognised for purposes of admission to a university, must seek such recognition from Poona University. But a university established at Poona must not have a preponderance of merely local (*i.e.*, Poona) influence but must reflect and represent the sentiments, aspirations and opinions of the whole of Maharashtra. It should therefore be a condition of its creation that its constitution reserve to all affiliated colleges and recognised High Schools, whether in Poona or the outlying parts of Maharashtra, such representation as will secure for all adequate means of expression and consideration of opinion. In the construction of its courses and in providing for the medium of instruction and examination it will have to pay due attention to the variety of opinion and sentiment in all affiliated colleges so as to secure cordial co-operation in the University's work of diffusing culture and promoting research.

(*ii*) To construct from the outset a university that is at once affiliating and a residential and teaching university for Poona, would, the Committee thinks, be to court failure. In such a scheme the attention and energy of those managing the university is likely to be concentrated on the more central and more closely incorporated institutions of the university, while the colleges outside Poona will stand in some danger of being neglected or of not having their interests duly considered. The course of events in the recent development of Allahabad University as disclosed in a letter to us from the officiating vice-chancellor of that University (*vide* Appendix No. 7) suggests that this is no imaginary danger. The Committee therefore is not prepared to lay down that the new university should from the beginning be of this combined type. But it recognises that, after the new university has been in existence for some years as an affiliating university, experience there and elsewhere and the conditions established in Maharashtra might remove the apprehensions above referred to. It will then be open for the new university to make out a case and apply for such change in its constitution as will allow it to undertake a residential teaching university, with colleges at Poona constituted on a somewhat different footing from those outside Poona. At the outset, however, colleges should be all in a like relation to the university and the organisation of university teaching should be restricted to post-graduate work, as at Bombay.

70. The unitary type rejected for Poona.

The third type, an exclusively unitary residential teaching university, comprising only institutions in Poona itself, does not find favour with the Committee. The disadvantages attaching to it have been mentioned in the fourth paragraph of this chapter. Regarded as an experiment, the Committee does not think it likely to succeed so long as those who conduct the experiment are not wholly at one with regard to the aims of the teaching university and the chief means to be adopted to gain them.

71. Detail of the constitution of the university for Maharashtra.

The Committee does not think it nescessary for it to give a complete outline of the constitution and organisation of the new university, but some further details require to be filled in, especially with regard to its relations with Bombay. On a consideration of the evidence, written and oral, a majority of the Committee inclines to the opinion that the medium of instruction and examination should be English. Messrs. Jayakar and Shah are of opinion that the Poona University ought to be left free to decide this question. (See Mr. Jayakar's note at the end of this chapter.) Though Mr. Natarajan is of opinion that English should be the medium of instruction, he agrees that Poona University should be free to decide this question. The Agricultural and Engineering Colleges offer difficulties. Being the only fully developed colleges of their kind in the Presidency, they must obviously be open to students from all parts of the Presidency, and the Committee is agreed that it is best they should remain affiliated to the University of Bombay, but should recognise the examinations of the new university as carrying the right of admission to them. The Law School at Poona on the other hand should be affiliated to the new university and its graduates be granted by the Bombay High Court the same privileges as those of the Bombay Law School. The Medical School at Poona should be developed in to a full college equipped to teach the full M.B.B.S. course and then be affiliated to the new university. The Committee were unanimous that the Deccan College should preserve its individuality as a college (whether for post-graduates or undergraduates or both) and be affiliated to the new university, both because of its long and honourable history and connection with Poona and because it has a character and influence that would supply a valuable element in the constitution of the new university. The territorial limits of the new university, we agree, should comprise the districts of East and West Khandesh, Nasik, Ahmednagar, Sholapur, Satara, Poona and Ratnagiri and the native states of Kolhapur, Sangli, Mudhol, Miraj, Akalkot, Jamkhandi, Savantwadi. The situation of Ratnagiri makes it doubtful to which university its high schools would prefer to be affiliated. If the new university adopts the vernacular as medium, they would probably prefer Poona. If there were a common Matriculation for the two universities (a point which the two university should decide for themselves), the high schools of Ratnagiri District might be allowed to seek recognition from both. It would be very desirable that the standards of examinations and degrees of both universities should be similar so that each might recognise the other's. Transfer of students from one to the other should be only allowed at clear cut stages of the students' academic career, *i.e.*, after passing a university examination. It would be very profitable to both to carry on regular exchange of professors and teachers. Some machinery would have to be provided to prevent, by mutual agreement and adjustment, unnecessary overlapping of post-graduate and research work. The question was raised whether the new university would be entitled to any share of the endowments of the University of Bombay. On examination of the

conditions attaching to the various endowments it appeared that substantial ground did not exist for transfer of any to the new university. The Committee however agreed that the transfer of endowments from the University of Bombay to any new university might be considered,

(*i*) in the case of any endowment that was limited to students of a locality within the jurisdiction of the new university;

(*ii*) if the donor was living when the question of transfer arose and was agreeable to a transfer.

A further question was raised as to the policy to be pursued by the University of Bombay or the new university in regard to the affiliation of new colleges within their jurisdiction. The Committee were not agreed on this matter, some members holding that new colleges should be opened only in such places as afforded a reasonable prospect of a university ultimately developing there. The majority however think there are not enough higher educational institutions in the country; that numerous centres of light and learning are for the present necessary to diffuse higher education and foster an atmosphere of culture; that these grounds justify the recognition of even weak colleges; and that therefore in present conditions it is not desirable to impose any such restriction on the opening of new colleges.

72. The necessary financial provision.

There remains to be considered the problem of how the new university is to be financed. To the Committee it seems desirable that the establishment of a new university should be sanctioned, since it is clear that the demand and need for it are real and urgent, and the necessary intellectual environment exists. But it is necessary to secure adequate means for the institution of a university such as can establish the reputation of its staff and students for scholarship and successful research. The Committee thinks that for the institution of a university approximately fifty lakhs are required. But having regard to the circumstances of Poona and Maharashtra the Committee suggests that a university might be started there if a capital sum of ten lakhs and an annual expenditure of $2\frac{1}{2}$ lakhs are provided for. How these figures are arrived at will appear from what follows.

73. Estimated cost of the new university.

The Committee has attempted to estimate what expenditure would be involved by the institution for Maharashtra of a university affiliating first grade colleges and itself undertaking to teach some at least of the post-graduate courses. It has been guided by estimates supplied by representatives of the societies in Poona interested in the foundation of the new university. The Committee's estimate is as follows:—

Non-recurring.

	Rs.
University site	2,00,000
,, Offices and lecture rooms ..	5,00,000
,, Library building and furniture	5,00,000

	Rs.	Rs.
Professors' bungalows (ten)	3,00,000	
Hostel for post-graduates	1,00,000	
Initial equipment of University Library with books	1,50,000	
	17,50,000	
Grand Total Non-recurring ..	17,50,000	

Recurring.

Examination charges	90,000	
Printing and advertisement	20,000	
Fellows' Travelling Allowance	20,000	
Stationery	8,000	
Examination Mandap	5,000	
Postage	1,500	
Repairs to Buildings..	5,000	
Electric lighting	1,000	
Insurance of buildings	3,000	
Library grant for books	15,000	
Miscellaneous	5,000	
	1,73,500	1,73,500

University staff.

Half-time Registrar (Rs. 400), Assistant Registrar (Rs. 500), and office establishment	30,000	
10 Full-time professors (on Rs. 800—1,250 p.m.) at average pay Rs. 1,000 p.m.	1,20,000	
10 Assistants (on Rs. 300—750 p. m.) at average pay Rs. 500 p.m.	60,000	
10 Lecturers @ Rs. 150 p.m.	18,000	
2 Fellowships for study abroad tenable for two years at Rs. 500 p.m. ..	12,000	
Librarian and library clerks on Rs. 300, Rs. 100, and Rs. 50	5,500	
	2,45,500	2,45,500
Provident Fund at 5 per cent. on Rs. 2,33,000	11,650	11,650

Post-graduate teaching Department.

	Rs.	Rs
10 Scholarships @ Rs. 100 p.m. ..	12,000	
10 ,, @ Rs. 75 p.m.	9 000	
Publications	2,000	
Grants for Research	2,000	
	25,000	25.000
Grand Total Recurring ..		4,55,650

From the recurring expenditure is to be deducted fee receipts estimated as follows :—

	Rs.
Matriculation fees	22,000
First Year College Examination fees ..	4,590
University examination fees	94,760
Registration and Degree fees	5,000
Post-graduate students' fees	10,000
	1,36,350

It thus appears that the new university would have to provide an annual income of Rs. 3,19,300.

In the above estimate it should be noted that no provision has been made for the university to undertake science, it being assumed that science must, for some time to come, continue to be taught by the colleges in their own laboratories as at present. The departments of post-graduate teaching contemplated by us are Economics, Ancient History, Indian History, Indian Philosophy, Mathematics, Sanskrit, Marathi, English. The University, if and when funds are available might make contribution to the science teaching of the colleges. But if science teaching is undertaken by the university in addition to the above subjects, estimates would have to be increased by Rs. 10 lakhs non-recurring for laboratory buildings and equipment and Rs. 60,000 recurring for laboratory expenses, while either other departments of post-graduate teaching would have to be dropped or the recurring expenditure on university teaching staff increased by some fifty per cent.

74. How is the new university to be financed.

The next question is how this expenditure is to be met. The Shiksha Vichar Mandal propose that the Deccan College buildings be converted to university buildings, that the annual expenditure, Rs. 1,40,000, on the Deccan College be utilised to meet the university's expenditure on post-graduate staff and studies and that Government give a grant to the university of at least Rs. 25,000 per annum. The Mandal estimated a Professor's salary at not more than Rs. 500 p.m. and their estimate of the recurring expenditure did not exceed the total furnished by the above sums of Rs. 1,40,000, Rs. 25.000 and Rs. 1,36.350 (from fees). But we do not think that a university can be satisfactorily staffed at

those rates or that a university of the type contemplated can be established wholly on the self-sacrificing principles of the Deccan Education Society. And the Committee finds itself unable to recommend a scheme which necessarily involves the disappearance of the Deccan College. We have said above (paragraph 12) that the new university will require fifty lakhs. To begin with, however, the university's annual expenditure will not reach the total of our estimate, for professors will start at the minimum rate of salary: nor need the university set up at the beginning *all* the post-graduate departments contemplated. Assuming again that science is not included, we think that the net annual expenditure could thus at the outset be reduced from Rs. 3,19,300 to within a total of Rs. 2,50,000. If ten lakhs were devoted to buildings and equipment, it will be necessary to provide a yearly expenditure of Rs. 2,50,000. This would require to be enlarged later as expenditure increases. Part of this expenditure, we think, should be met by a grant from Government. We have in chapter XVIII pointed out that the Governments of other provinces make substantial recurring grants to universities, amounting in the United Provinces to six or seven lakhs. If Government approve the reasons for starting a new university, and the necessary financial provision is secured, we think that not only should sanction be given by Government to the university but also an annual grant which should be fixed at not less than one lakh.

Note C.*

By Mr. M. R. Jayakar on the Deccan College.

I am not against the disappearance of the Deccan College in its present form. I favour its transformation into a post-graduate institution affiliated to the Poona University. I believe that in that capacity it will be of greater use than now, and may act as a valuable corrective to the Poona University developing on any narrow or communal lines. From inquiries made in Poona and outside, I feel that, whatever purpose the Deccan College served at one time, it has now become virtually a college for the sons of the wealthier classes. In that capacity, its want will be felt less and less in future. In the past it served a very useful purpose, and, if maintained in future as an undergraduate college, it will be, like some of the colleges in England, an institution patronized chiefly by a certain class of people, who desire for social reasons to maintain their isolation. I am of opinion that it is undesirable to do so. I believe that Government will be well advised in making over the Deccan College, together with the money which they spend on it, to the Poona University for the development of post-graduate teaching and research subject to such conditions as to efficiency, personnel, etc., as Government may desire to lay down.

M. R. JAYAKAR.

* A further note (Note L) by Mr. A. B. Lathe on the Maharashtra University is printed at the end of the Report.

Note D.

By Mr. M. R. Jayakar on the Financial Provision for a Poona University.

I am against fixing any minimum as a condition precedent to the starting of the Poona University. I have agreed to the minimum financial requirements being stated in our Report in order that both the Government and the public should have before them an approximate idea of what the financial burden will be, in order that the knowledge may act as an incentive to the provision of the amount by public donation or Government aid. But I am also conscious that it is possible for Poona to make an humble beginning by some kind of arrangement which will make unnecessary for the time the provision of costly buildings and separate machinery which we mention in our Report. I am aware of the special facilities which exist in Poona tending to the creation of such an arrangement, and I am desirous that Poona should be left free to arrive at such an arrangement unhampered by any condition, which we, in costly Bombay, consider as indispensable. If enough enthusiasm exists in Poona for a University, as I am told is the case, it should be possible for its citizens to start the work immediately with small beginnings, and I am anxious not to make such an endeavour difficult by the imposition of a minimum provision. I would leave the minimum to be fixed between Poona and the Authorities, at the right time, with due regard to the arrangements Poona is able to make and the studies it wants to undertake in the beginning.

M. R. JAYAKAR.

Note E.

By Mr. M. R. Jayakar on the Medium of Instruction and Examination at Poona.

I am of opinion that, in the matter of the medium of instruction and examinations, the new universities which we propose should have perfect freedom. The choice of such a medium is often a question of relative convenience, the aim being throughout to select a medium which will be found convenient by the pupils and the staff, and which will present opportunities of imparting and assimilating knowledge without undue strain on the teacher and pupil. *Prima facie*, such a medium in India would be an Indian vernacular, but I am prepared to concede that, having regard to the special circumstances of the city of Bombay, its cosmopolitan population and intimate connection with the British people and their business and cultural activities, the medium of instruction and examination in the Bombay colleges and University should be English. I know from experience that, owing to the special environment in which a Bombay student lives, he enjoys special facilities of knowing the English language, as it is spoken and written by Englishmen. But this does not blind me to the difficulties which a mofussil student has of making English the language of his everyday thoughts. Besides, the subjects which a University like the Poona University will

'teach will be more allied to Indian history and culture than in Bombay, and for such a course of study, I am of opinion that an Indian vernacular is far better suited than English. I do not have any apprehensions that the use of a vernacular in such universities will cause any racial or communal reaction, for a university like Poona, under our proposal, being an affiliating university for the whole of Maharashtra, it will have to protect itself against reactionary excesses, likely to cause suspicion and distrust in the mind of its constituent colleges, in some of which will preponderate elements which will act as a safeguard against extreme provincialism. Of course, Poona will have to face the question that those students who will go up to professional colleges like Law, Engineering and Medicine will have to be brought up to the Bombay standard of the English Language, and I am not without hope that this element will operate as a strong check against any inferior standard in English being adopted in the Poona University. I would therefore leave this question to the Poona University to be determined when the occasion arises, with due regard to its circumstances as they exist at the time.

M. R. JAYAKAR.

I agree.

FAZULBHOY CURRIMBHOY.

CHAPTER VII.

THE UNIVERSITY OF BOMBAY A TEACHING UNIVERSITY.

75. To what extent was the University of Bombay a teaching university previous to 1912 ?

What is meant by a " teaching university " ? Do not all universities teach ? The term seems to have originated in the need to distinguish :—

(*i*) the type of university which is only an organization for an examination of and conferring degrees on students ; whether (*a*) the students of certain teaching institutions, as in the case of London University in the period 1836—1858 ; or (*b*) the pupils of any teaching institution or of any teacher whatever, as in the case of London University in the period 1858—1898 : and

(*ii*) the university which is either an actual institution giving instruction (a ' unitary ' university), as Manchester in 1904, or which participates with the several institutions or colleges that are incorporated with it in giving direct instruction to students, as Oxford and Cambridge do. The Bombay University was modelled on London University before the latter (in 1858), threw open its examinations to all students irrespective of the institution or teacher from whom the students had received instruction. Bombay therefore was originally not a teaching university in the above sense but merely an organization for the purpose of examining the students of certain teaching colleges affiliated to it and conferring degrees on the qualified. In 1898, however, London University was reconstituted and a compromise attempted which should combine a teaching university with the existing purely examining university, without creating two distinct universities for London, and at the same time allow scope for expansion. Accordingly, a distinction was drawn between *internal students* (*i.e.*, matriculated students studying in ' constituent ' colleges and ' schools of the University ', or under ' Recognised Teachers ' of the University) and *external students* (*i.e.*, those who pursue their studies where and how they please and are admitted to the examination without any condition as to attendance at approved courses). The Indian Universities soon followed suit so far as concerns the arrangements for teaching internal students, for, as a result of the University Commission of 1902, the organisation of the University of Bombay, as of others, was altered by the Act of 1904 so as to give the University power to add teaching functions to its affiliating and examining powers. The Bombay University of 1857 had been established " for the purpose of ascertaining by means of examination the persons who have acquired proficiency in different branches of Literature, Science and Art and of rewarding them by academical degrees as evidence of their respective attainments and marks of honour proportioned thereunto." The Act of 1904 says the University has been incorporated " for the purpose (among others) of making provision for the instruction of students, with power to appoint University Professors and Lecturers, to hold and manage educational endowments, to erect, equip and maintain University libraries, laboratories and museums, to make regulations relating to the residence and conduct of students

and do all acts, consistent with the Act of Incorporation and this Act, which tend to the promotion of study and research." This Act thus gave the University the power, alongside of its affiliating and examining and degree-conferring functions, to give instruction direct to students, to appoint a University teaching staff, to promote research, to conduct institutions for these purposes. It continued to insist that all candidates should have undergone instruction in an approved course at a recognised institution and so excluded 'external' students. It gave to teachers who were members of the Senate a real voice in the government of the University, for two-fifths of the elected and nominated Fellows have to be persons following the profession of teaching, while on the Syndicate seven out of fifteen elected members have to be Heads or Professors of Colleges. The Senate is also empowered to make regulations for the recognition of High Schools. The appointment of the Director of Public Instruction *ex-officio* on the Syndicate goes some way to secure co-operation between the Educational Department and the University in control of secondary education. The Act also defines the conditions of affiliation of colleges and provides for their inspection and the control of students' residential conditions and inter-collegiate relations. So far the Act made the University of Bombay a Teaching University. But, says the Calcutta Commission Report, "it was only a half-hearted and imperfect advance which was made towards that constant and vital consultation of the teachers which is of the essence of a genuine teaching university". Its limitations are obvious. Only teachers who become by election or nomination members of the Senate have a real voice in the government of the University: only 40 of the teachers of the Presidency *must* be members of the University: even to be Principal of an affiliated college does not constitute a man a member of the University. There is no provision to secure representation of the ablest and most stimulating teachers, or of University Professors or of particular subjects or of particular colleges. There is no provision of a really expert body to manage those academic matters which must be of even greater importance and frequency in a teaching than in an examining university; and no provision to effect co-ordination and co-operation between different studies, faculties and colleges. Though the University gains a measure of control of its colleges, the control is difficult to exercise without offence. Lastly, though the Act of 1904 does not limit the University to any sphere or grade in the teaching it undertakes, the Commission of 1902 had said that the intervention of the University in undergraduate teaching did not appear to it likely to produce good results and suggested that the "Universities justify their existence as teaching bodies by making further provision for advanced courses of study". This limitation of the University to post-graduate teaching was in fact generally accepted (Calcutta Commission Report, Volume I, Chapter III, paragraph 91).

76. Measures to create teaching departments in 1912—24.

For some years owing to lack of funds the University of Bombay took no steps to utilise the powers thus given it. In 1912 the Government of

India offered to the University a non-recurring grant of Rs. 3 (subsequently 5) lakhs and recurring grants of Rs. 45,000 and (in 1914) Rs. 12,000 for the purpose of developing its teaching functions. A scheme was drawn up and approved in 1913 which provided for various measures. Under it Sir Alfred Hopkinson, Vice-Chancellor of Manchester University, was brought out in 1913-14 to advise. A University School of Economics and Sociology under University Professors and Readers was opened in 1918. A scheme of post-graduate teaching in a limited number of subjects of the M.A. degree course by lectures and classes conducted by men selected mainly from the staffs of colleges was set at work in 1914. Simultaneously occasional courses of lectures by eminent men from abroad were arranged. In 1922 this scheme underwent revision which resulted in the abandonment of the occasional lecture courses and adoption of a new scheme which proposes in due course of time to substitute for the existing M.A. examination a system of training in original research: and sets up a Board of Management and a Board of Post-graduate Studies to organise work in Economics, Sociology, Sanskrit and allied languages, History (especially Indian History) and Mathematics. This scheme does not at present create any additional University chairs: it requires students to carry out research under direction of a competent teacher appointed by the Board, and contemplates remunerating such teachers or the college which lends their services. The scheme will not come into operation till June 1925 so that it is not possible to speak of its working. A copy of the scheme is printed in the Appendix (No. 8). The scheme of 1912 further included a reorganisation of the University library which has been going on during the last ten years and converted a deserted and empty hall into a well attended and arranged library of 30,000 volumes, a library of great utility to student and staff, though as yet of little use for real research. The library does not attempt a Science department, that being left to the Royal Institute of Science. Lastly a small fund was created to assist research workers, and some publication work has been done. Extension lectures were suggested but nothing of this kind has been attempted. New university buildings were erected to provide for the post-graduate work.

77. The University of Bombay has not been a teaching university in the full sense.

In a loose sense, as was said in Chapter III, paragraph 32, the University of Bombay has always been a teaching university since it teaches through its affiliated colleges and has exercised an indirect control over higher education by means of its prescription of syllabuses, its examining function, its periodical inspection, its inclusion in its Senate and Syndicate of a number of teachers and by the conditions under which it grants affiliation. But the phrase a teaching university means more than this; it implies at least "a direct provision for teaching by appointing its own professors and lecturers" (Universities Commission 1902). In its fullest and best sense it implies teaching not only by university professors but of a special kind. It implies that the university's academic policy is guided principally by its teachers; that the university teachers

are in constant and intimate contact with their students; that these students are of an age and maturity to benefit by such contact but not necessarily that they are *post-graduate* students. It means further that professor and student are a community of workers with a common ultimate aim, the pursuit of knowledge for its own sake, the development of individuality and mental effort, the cultivation of a critical spirit, a standard of thoroughness and a capacity to examine and weigh evidence and to state conclusions judicially. Except in a loose and indirect sense the University of Bombay prior to 1912 was not a teaching university and since that date it has only made a very partial approximation to the ideal. The problem for which the Committee is asked to furnish a solution is how that approximation can be made more complete.

78. The University of Bombay cannot become a purely unitary university.

Obviously a university can make direct provision for teaching *all* subjects by its own professors only in regard to a very limited area. Such a system involves either a unitary university or a university providing a teaching organisation for institutions situated very close to each other. To convert the University of Bombay into a purely unitary university would mean the separation from it of all institutions outside the island of Bombay. No witness and no member of the Committee has seriously suggested this. Indeed it is only conceivable if there were some other university competent to take over from Bombay all its mofussil colleges or if the mofussil colleges themselves could be organised into a number of separate universities. In Chapter V we have stated our opinion that no other centre in the Presidency is as yet ripe for development into a university except Poona. And even if it were possible to transfer the affiliation of all the mofussil colleges to a Poona university, it would not be a change for the better. The time seems to us remote when the University of Bombay can be relieved of its responsibilities for collegiate education in the mofussil.

79. The University of Bombay cannot absorb its colleges in the island of Bombay.

It has been suggested to us that the University of Bombay should aim at becoming a unitary teaching university for the colleges in the island of Bombay, and an affiliating university for the mofussil. That it should be a teaching university in a truer and larger sense than it has been we are agreed. We do not think it could become in any sense unitary as regards the Bombay colleges unless the concentration round one centre that we have advocated in Chapter IV can be accomplished. The Wilson College is three miles away from the University and Elphinstone College, and, unless concentration is effected as recommended by us, any system of inter-collegiate lectures is impossible except for post-graduate students who require few. But a much greater difficulty than the distance is presented by the feeling of the college authorities towards the proposal. All object to merge their identity, individuality and special interests in the University. And as the two largest Arts colleges are missionary

colleges and Elphinstone College was the first college to be affiliated and has a distinguished record, the majority of the Committee think that their entire absorption by the University is out of the question. Nor indeed can we see any reason to suppose that the University would manage the colleges any better than they are managed now, except so far as it might effect economy of lectures and classes. Such economy we believe is possible without destroying the individuality of the colleges.

80. Should the University undertake B.A. Honours and post-graduate teaching ?

If the University cannot undertake the teaching of all the courses of the Bombay colleges, should it attempt some part only ? It is suggested by several that the University should undertake the Honours graduation and post-graduation courses. We print in the Appendix (No. 9) the number of students, as supplied by the Registrar, who appeared in 1924 from the Bombay Arts Colleges at the various examinations of the University. From these figures it would seem that in *all B.A. Honours* groups instruction of a general nature on a limited subject could be given in a term's course of lectures, by a single lecturer, to the students of all the colleges—provided that the colleges are near enough and the time tables of the colleges are suitably adjusted. It would be easy to draw up a scheme of lecture courses to include all the instruction necessary and distribute the courses between the colleges. On the other hand each college would still have to make provision for tutorial and written work with its own honours students more particularly for English, Sanskrit, History and Economics Honours, on account of the numbers taking these subjects. Of certain Honours subjects the teaching could well be restricted to certain colleges, *viz.*, Persian, Latin, French, Portuguese, Avesta Pehlavi, Arabic, Hebrew, Mathematics, Philosophy. The same system could be applied to most if not all the B. A. pass classes. Indeed certain subjects such as Persian, Latin, the vernaculars, Pali, Hebrew, Arabic, attract so few students that there seems no reason why *all classes* (whether in first, second, third, or fourth year) should not be taught by a single teacher at one conveniently situated building, whether in the university or a college. There does not seem then any obstacle in the size of the classes to the University's undertaking Honours teaching. The colleges themselves, however, are opposed to it and it might be difficult to impose it on them against their will. For they have a ground for their objection which seems to the majority of the Committee a solid one. If the University takes over all the advanced work, the colleges lose touch with their best pupils and will further be deprived of incentive to staff themselves with highly qualified men. There will be an obvious temptation to economise expenditure on salaries by engaging teachers competent for pass work only. The undertaking moreover will throw on the University a very heavy burden of expenditure which is at present met by the colleges. And if it be urged that the same university staff as supplies instruction to the post-graduate classes could also undertake the Honours B.A. classes, it must be replied that it is not desirable that

University Professors should be burdened with so heavy an amount of teaching that they have no leisure for the investigation and publication that are expected of them.

81. Co-ordination of B.A. Honours classes by the University.

We think therefore that the undergraduate Honours courses should continue to be taught by the colleges not by the University, but that a better organisation must be applied to effect a co-ordination of the courses and lectures. Such organisation will obviously be much easier if the colleges can be concentrated in the manner we have proposed. We think the re-organization must be effected by the University in some such manner as the following. The University should call on all colleges to apply to it for a new affiliation. Such applications should be referred to a suitably composed committee constituted for this purpose by the Syndicate or the Academic Council, if created, and this committee in consultation with the college authorities and with due regard to their staff, accommodation and equipment generally, as reported by the University Inspection Committee, should finally arrange in what subjects each college should be affiliated and how the staffs and teaching of the colleges could best be co-ordinated and correlated in the interests of the University and the colleges. Affiliation of all colleges thus once revised, and a workable system of inter-collegiate lectures and co-ordination of courses set on foot, it would be the duty of a Committee of the Academic Council to consider changes that might from time to time be required and make the necessary revision (see below Chapter XVI, paragraph 184, sub-section (vi), the powers of the Academic Council).

82. University teaching for post-graduates only.

In our opinion therefore, as in the opinion of the Universities Commission of 1902 (Section 24), the University should undertake only post-graduate instruction and research. Such work should be undertaken and directed principally in Bombay, but also at such other centres as the University might decide. In arriving at this decision the Committee was aware of the undesirability of separating in water-tight compartments the undergraduate and post-graduate teaching and of the force of the contention of the Royal Commission on the University of London (paragraphs 69—71) that the association of the two is in the best interest of both student and teacher. "It is only by coming into contact with the junior students that a teacher can direct their minds to his own conception of his subject and train them in his own methods and hence obtain the double advantage of selecting the best men for research and getting the best work out of them. Again it is the personal influence of the man doing original work in his subject which inspires belief in it, awakens enthusiasm, gains disciples." So with regard to both the University professor and the college teacher it is necessary that each should have post-graduate students working under him. "He must be doing original work himself and he often obtains material assistance from the co-operation of advanced students. Their very difficulties

are full of suggestion and their faith and enthusiasm are a perennial source of refreshment and strength." Again, "it is also a great disadvantage to the undergraduate students of the University that post-graduate students should be removed to separate institutions. They ought to be in constant contact with those who are doing more advanced work than themselves, and who are not too far beyond them, but stimulate and encourage them by the familiar presence of an attainable ideal.". We believe however, that complete isolation of graduate and undergraduate will not be created by the scheme of post-graduate study set forth in the next Chapter. It is our hope that the University will secure for it the hearty co-operation of the colleges, obtaining from college staffs, not only a succession of lectures, but not infrequently a teacher well fitted to fill a university professor's chair. We are confident also that the University can rely on college teachers to supplement the tutorial work and guidance of post-graduate students.

83. University Adult Education.

A university's teaching work does not end with the provision of adequate instruction to graduates and undergraduates. It has responsibilities to the community at large, a duty to contribute to the development in it of a common spirit, aim and individual character. It must therefore take cognizance of those whom the need of a livelihood has called away from school or college before they are matured and who wish to supplement their knowledge or to preserve and strengthen their intellectual powers and activity amidst the utilitarian pursuits of industry and the deadening routine of office, factory or shop. In Chapter IX we have drawn attention to the growing recognition of the importance of this part of the teaching activity of a university and have made some suggestions for the fulfilment of such duties by the University of Bombay.

84. It is necessary to add in conclusion that the recommendations of paragraphs 81 and 82 above are made by a majority of the Committee only. Messrs. Jayakar and Shah were of opinion that the ultimate ideal of the University should be to absorb all courses Pass and Honours within the city of Bombay. Mr. Jayakar's opinion is expressed in the following note (F), Professor Shah's in his Note M at the end of the Report.

Note F.

By Mr. M. R. Jayakar, on the Bombay University developing into a full Teaching University for the City of Bombay.

I do not agree with the recommendations of the majority contained in paragraph 79 of Chapter VII, and I hold the view that the University of Bombay should declare that its aim is to become a teaching university in the truest and largest sense of the term. The terms of reference to the Committee in Clause (*a*) require this Committee to submit proposals

for such modifications as may be considered necessary, in order to effect its "transformation" into a teaching university, and I can say without undue disclosure of the circumstances which led to the appointment of this Committee, that one of the main purposes which Government had in view in appointing the Committee was that means should be suggested for effecting such "transformation". The evidence laid before the Committee makes it clear that the Bombay University has had, all these years, two different kinds of functions to perform, quite distinct in their nature and effect, one, with reference to the colleges situated in the city of Bombay, and the other, with reference to those outside. The condition of these two sets of colleges differs materially, almost in every important particular, and although they both are classed under the common head of colleges affiliated to the Bombay University, their relations with the University vary materially in practice. I will, therefore, recommend a bold course of conduct, under which the Bombay Uuiversity becomes, in course of time, a unitary and full teaching university for the colleges in the Island of Bombay, and an affiliating university for the mofussil. One of the difficulties in the way of the former is supposed to be the concentration, round one centre in Bombay, of all the Bombay colleges. For a long time, this was regarded as an insuperable difficulty in the way of this development, but fortunately the Committee, almost unanimously, now recommend the concentration of all the Bombay colleges in one area in the Fort. So the main difficulty is removed, and consequently much of the force of the argument of the majority in Chapter VII, paragraph 79, is weakened by reason of this proposal. The Committee is now practically agreed on recommending that, for post-graduate studies, all teaching should be concentrated in the hands of the University. Nay, the majority has gone further, and, in order to meet the wishes of some of the members, has recommended that, even for B.A. (Honours), the lectures may be co-ordinated with a view to save time and secure unity and efficiency of effort. I desire to go further and apply the same principle to all undergraduate studies eventually, when the necessary atmosphere and understanding are created. It is said that the colleges view this proposal with disfavour, but so do they the proposal about concentrating them in the Fort area and taking over all post-graduate studies. The Wilson College, in particular, raised the strongest protest against this proposal of the Committee. But, notwithstanding the same, the Committee has decided, and rightly in my opinion, that concentration should take place. There is no question of colleges merging their identity, individuality and special interest in the University. The colleges may remain separate units, if they desire to do so, and may take up tutorial and residential work—the work of direct and intimate supervision and guidance over their students, which, in an undergraduate's career is as important as teaching. It is no objection to say that the two largest colleges in Bombay are missionary colleges, and I think it is stating the case for these missionary colleges somewhat unfairly, to say that they would not be, owing to their missionary character, willing to fall into line with the policy of the University, if it were agreed upon. The experiment has, in my opinion, been sufficiently tried in the past of

leaving matters of education in the hands of private institutions, with a minimum control exercised by the University, and personally, I hold the view that a good deal of the difficulty which the educational problem presents is due to this fact.

2. In paragraph 80 of Chapter VII of the Report, reference is made to the figures in connection with B.A. (Honours) groups, and they make it perfectly clear that, even at the present day, the University will be able to take up exclusive teaching in the Honours courses without any difficulty. As the majority observe in the said paragraph :—" From these figures it would seem that in *all* B.A. (Honours) groups, instruction of a general nature on a limited subject could be given in a term's course by lectures by a single lecturer to the students of all the colleges—provided that the colleges be near enough and the time-tables of the colleges be suitably adjusted. It would be easy to draw up a scheme of lecture-courses to include all the instruction necessary and distribute the courses between the colleges..... Of certain Honours subjects, the teaching could well be restricted to certain colleges, for instance, Persian, Latin, French, Portuguese, Avesta, Pehlvi, Arabic, Hebrew, Mathematics, Philosophy. ..... There does not seem to be any obstacle in the size of the classes to the University undertaking Honours teaching." Having said so much in favour of an argument which supports my view, the majority go on to reject it on the ground that the colleges would be opposed to the idea, forgetting, for the moment, that the colleges are equally opposed to the idea of concentration in the Fort and co-ordination of lectures for the post-graduate and Honours studies. If, notwithstanding their objection, such a concentration and mingling of courses can be forced upon the colleges against their will, I cannot see why the colleges should be found more refractory, if an entire and well-considered scheme of University teaching is launched into existence. It is said that such a course would take away the best pupils from the colleges and they would be deprived of all incentive to work. But the effects of this alleged evil are, in my opinion, considerably exaggerated when we remember that, under our proposals, the Pass and the Honours courses are no more regarded as superior and inferior as hitherto, but as amounting to special and general courses of training only. Besides, the best pupils will, under my suggestion, remain attached to their colleges for all purposes except teaching. They will reside, and will receive tutorial instruction at their college, will maintain their connection with it, and the colleges in no way will be deprived of their association, excepting that, for purposes of instruction, they will attend a class taught and controlled by a University Professor. The argument, that this undertaking will throw on the University a very heavy burden of expenditure, is, in my opinion, not very satisfactory; first, because any rational and far-reaching scheme of reform is bound to cost heavy expenditure, which the University and the Government must be prepared to meet, and, secondly, because the colleges themselves may, under some arrangement, be called upon to pay for the instruction of its students who are educated by the University. There is no question of burdening the professorial staff with a heavy amount of teaching, because, as soon as such functions are taken over by the University,

there will be a corresponding reduction in the staff of the colleges, and that staff will be set free to take up the University education work, if found competent. I may go further and mention that nearly all the arguments advanced in paragraph 81, Chapter VII, of the Report with regard to the co-ordination of the B.A. (Honours) classes by the University apply with equal force to my proposal. I feel no doubt that, if the University ventures upon this undertaking with faith and courage, it will succeed, notwithstanding many difficulties which seem so great at present. I am not suggesting an immediate or a revolutionary reversal of present-day conditions. All that I am seeking for is that the University should recognize this as the ideal and should gradually work towards it as opportunities permit, beginning with post-graduate and Honours courses, and gradually creating conditions, under which it will be easy to take up all undergraduate courses, or as many of them as possible, under its own training, supervision and guidance. My scheme does not necessarily involve the obliteration of existing colleges, but only the transmutation of their present work into something which is equally useful and important in University training.

M. R. JAYAKAR.

CHAPTER VIII.

POST-GRADUATE TEACHING AND RESEARCH: UNIVERSITY PRESS AND PUBLICATION DEPARTMENT.

85. The Committee's scheme of Post-graduate study explained.

The following scheme (see paragraph 88) is intended to convey generally how we think post-graduate studies might be organised in Bombay. It relates only to post-graduate studies. It restricts the provision of post-graduate teaching to the University, except as regards science, for which adequate provision exists elsewhere and for which it is not necessary for the University to undertake the heavy expenditure that will be involved. It aims * at securing co-operation in teaching between college and University by employment of members of the college staffs as paid lecturers. It provides for the opening of centres of post-graduate study outside Bombay at Poona (if a new university is not established), Ahmedabad or other large centre, to be run by local committees: and contemplates the University of Bombay financing such work so far as its funds allow †. It places the management of post-graduate studies in the hands of special committees under the control of the Academic Council. It proposes that the University appoint teachers in English, Economics, Sociology, Education, History, Indian and European, Marathi, Gujarati, Kanarese, Sanskrit, Persian, Urdu, Philosophy, and that Latin, French, German, Pali, Arabic, Avesta, Pehlavi, which attract few students, be left to the colleges, for the present at least. The institution of teaching in Faculties of the Fine Arts and other additional Faculties is discussed in Chapter XIV-D. It provides a scale of salaries which, the Committee is aware, will seem low in comparison with European, or Indian Educational Service rates. But after considering a great variety of scales proposed by witnesses, ranging from Rs. 1,500—Rs. 3,000 per mensem to Rs. 450—750 for Professors, we have adopted the scale named as corresponding with what we anticipate will be the rate in the reorganised Government Educational service: as likely to attract and keep the best type of Indian graduate with academic ambitions; as sufficient for a comfortable and dignified maintenance according to Indian standards; and lastly as being the maximum that the University is likely to be able to afford. In this matter we recognise that no salary the University can offer can compete in attraction with the emoluments and rewards of the higher public services or industry or profession. The University must rely on its other attractions for obtaining the right type of men, and may also

* *Secretary's note.*—"I do not think the scheme provides sufficiently for co-operation between College and University. I would have the University recognise some college teachers as University Professors even though they were paid nothing by the University, provided they gave post-graduate lectures under approved conditions. And where there is only one college affiliated in a subject, especially if it be a professional college (*e.g.*, Commerce or Teaching), I regard it as absolutely necessary that the staff of the college should be permitted to teach post-graduate courses—for reasons stated in Chapter VII, paragraph 82. I cannot understand why the university or a University Professor should want to claim a monopoly of advanced teaching in any subject."

† Mr. Lathe is of opinion that post-graduate work, especially in the vernaculars, should be begun at mofussil centres simultaneously with post-graduate teaching at Bombay.

expect that educationists will recognise that theirs is a profession in which some sacrifice is necessary. But that is not to say that a university is to count upon the latter consideration. In order to obtain and maintain a professorial body that will be at once willing, energetic and effective, proper salaries must be paid *.

86. Appointment of Professors, etc.

The University Professors and their Assistants and Readers should be appointed by the Syndicate on the nomination of a selection committee consisting of the Vice-Chancellor, Rector, two members elected by the Syndicate, two members elected by the Academic Council and the Dean of the Faculty concerned. We see no necessity for a special committee for selection of Professors chosen from abroad, such as is instituted in some of the new universities of India. The above committee could formulate the requirements and correspond with university authorities abroad. The appointments should be made on a contract for five years, renewable as often as the Syndicate, on the recommendation of the Academic Council, may decide, but not normally at rates above the scale we have proposed. But special contracts and special rates might be necessary for Professors or Readers engaged from abroad. We give the name *Reader* to a teacher in sole charge of a minor department of university teaching. All university teachers should be required to subscribe $6\frac{1}{4}$ per cent. of their salary to the University Provident Fund, the University also contributing $6\frac{1}{4}$ per cent. over and above the salary.

87. Estimate of the Cost.

A rough estimate of the cost to the University of this scheme of post-graduate study, over and above the present expenditure on the University School of Economics and Sociology, is given in Chapter XVIII. It should be noted that the estimate does not include any expenditure on post-graduate teaching at other centres than Bombay. We also assume that the Committees of Post-Graduate Studies, Academic Council and Syndicate will, between them, be careful to avoid unnecessary duplication of Post-graduate teaching at Poona or other mofussil centres.

88. Scheme of Post-graduate instruction.

(1) The University shall provide Post-graduate teaching and study with reference to the courses laid down for the degrees of M.A., M.T., M.Com., and LL.M.

(2) Post-graduate teaching in Bombay with reference to the courses for the degrees of M.A., M.T., M.Com., and LL.M. shall, for the present, be conducted only by the University.

(3) Post-graduate teaching in Bombay with reference to the M.Sc. degree, may be conducted in the name and under the control of the

* The Secretary would go further and say that a university cannot be conducted on the self-sacrificing principle ; and that, if for the sake of such a principle, salaries be reduced to a bare subsistence, such salaries will not be ' proper ' and the University will not be ' properly ' staffed.

University at such institutions as the University may recognise and affiliate for that purpose. Such institutions shall include the Royal Institute of Science, Bombay.

(4) The University may recognise, as a centre of University post-graduate teaching for the M.A., M.Com., M.T. and M.Sc. degrees, an institution or a group of institutions at a place outside Bombay.

(5) All candidates for the M.A., M.Com., LL.M., M.T. degrees shall be certified to have gone through under supervision courses of instruction either in Bombay or at one of the recognised mofussil centres.

(6) Candidates for the M.A., M.T., M.Com., LL.M. and M.Sc. degrees, whether studying in Bombay or at a mofussil centre, shall pay to the University a fee of Rs. 75 per term. Candidates for the M.Sc. must be certified to have worked under the direction of a recognised teacher.

(7) The staff for post-graduate teaching in Bombay shall consist of any of the following classes of teachers :—

(*a*) teachers appointed and paid by the University, *viz.*, full time Professors appointed for a term of 5 years (renewable) on a salary of Rs. 800—50—1,000—50—1,250 : full time Assistant Professors and Readers appointed for a term of 5 years (renewable) on a salary of Rs. 300—50—500—50—750 ;

(*b*) teachers in colleges whose attainments specially qualify them for post-graduate instruction and who undertake at the request of the University to deliver a course of lectures on selected topics : such teachers shall be appointed by the University for one year on a monthly salary say of Rs. 150, or for the delivery of one term's course of a fixed number of lectures, say Rs. 1,000 for 12 lectures and six hours devoted to direction of individual student's studies ;

Remuneration to College lecturers may be paid either to the lecturer or to the authorities of the College to which he belongs as may be arranged ;

(*c*) persons who undertake at the request of the University on the recommendation of the Academic Council and for an agreed remuneration to deal with special subjects in which they are authorities.

(8) The organisation of Post-graduate instruction shall be carried out by Committees of Post-graduate studies subject to the control of the Academic Council :

(*a*) *For Arts*, the Committee shall consist of—

(*i*) the Rector,

(*ii*) one University Professor, Assistant Professor or Lecturer to represent each Board of Studies in the Faculty,

(*iii*) four Principals of Arts Colleges in Bombay,

(*iv*) five members of the Arts Faculty appointed by the Academic Council.

(*b*) *For Science*, the Committee shall consist of—

(*i*) the Rector,

(*ii*) Principals of colleges in Bombay affiliated in Science,

(*iii*) one representative of each Board of Studies in the Faculty of Science and two representatives of Mathematics,

(*iv*) five members of the Science Faculty appointed by the Academic Council.

(*c*) *For Law*, the Committee shall consist of—

(*i*) the Rector,

(*ii*) the University Professor of Law,

(*iii*) the Principal of a Law College,

(*iv*) two representatives of the Law Faculty.

Similar Committees may be constituted for other Faculties.

(9) The Committees of Post-graduate studies may each appoint an Executive Committee.

(10) The Registrar or Assistant Registrar shall act as Secretary to the Committees of Post-graduate studies.

(11) It shall be the business of the Committees of Post-graduate studies,

(*i*) to draw up annually on the advice of the Boards of Studies a scheme and time-table of instruction and lectures to supply the needs of Post-graduate students;

(*ii*) to determine the place at which lecture courses shall be delivered;

(*iii*) to publish one month before the opening of the academic year a complete statement of the scheme;

(*iv*) to demand from lecturers and publish for the use of students summary outlines of each course of lectures;

(*v*) to recommend to the Academic Council the names of lecturers and subjects of lectures approved;

(*vi*) to recommend to the Academic Council the affiliation for the purpose of Post-graduate instruction, of institutions other than colleges teaching the University courses, *e.g.*, museums or learned societies and institutions;

(*vii*) to see, subject to the Academic Council, that the duties of University teachers are properly fulfilled and suitable methods and a proper standard of teaching maintained.

(12) Courses of study for Post-graduate degrees shall be drawn up by the University Boards of Studies: such courses should, as a general rule, not include the names of prescribed text-books, the selection of which to illustrate the prescribed course or subject should be left to the candidate acting on the advice of his tutor. Boards of Studies, however, may *recommend* books for study.

(13) Each Board of Studies shall, not less than six months before the end of March, formulate the requirements in the following academic year of its special department, together with an estimate of the financial cost and forward it to the Committee of Post-graduate Studies concerned. The Committee shall prepare a consolidated budget which shall be forwarded through the Academic Council to the Syndicate for incorporation in the annual budget estimates.

(14) (*a*) A college or group of institutions situated outside Bombay may apply to the Academic Council for recognition as a mofussil centre

of university teaching. Such applications when first made shall be accompanied by a statement showing the institutions which are prepared to co-operate for Post-graduate instruction and their equipment for the purpose: also the names and qualifications of the teachers of the institution who are prepared to deliver lectures and conduct classes: the scheme and time-table of lectures which it is proposed to adopt: and the constitution of the local committee to which is to be entrusted all the arrangements.

(*b*) On such application being received, the Academic Council shall refer it to the Bombay Committee of Post-graduate Studies in the Faculty concerned and after considering the Bombay Committee's report shall decide. If the Academic Council approves the recognition of a mofussil centre, it shall lay down the constitution of the local Committee of Post-graduate Studies which shall be responsible to the Academic Council and the Syndicate for all arrangements at that centre.

(*c*) A mofussil committee of Post-graduate studies shall annually, at least six months before the end of March, report to the Academic Council the arrangements proposed for Post-graduate studies at that centre, together with an estimate of the financial cost to the university of the proposals: and such arrangements shall not be carried out until they have been approved by the Academic Council and the expenditure sanctioned by the Syndicate.

(15) The University should undertake post-graduate teaching wholly or partially in the following subjects and by means of the staff named :—

Subject.	University Professor.	University Assistant Professor or Reader.	College Lecturer recognised by University as a University Post-graduate Lecturer.
1. English	1	..	2
2. Mathematics	1	1	..
3. Economics	1	1	..
4. Sociology	1	1	..
5. History Indian ..	1	1	} 2
6. History European ..	1	1	
7. Education	1	1	..
8. Marathi	..	1*	..
9. Gujarati	..	1*	..
10. Kanarese	..	1*	..
11. Sanskrit	1	1	..
12. Persian and Urdu ..	1	..	1
13. Philosophy	1	1	1
Total ..	10†	11	6

*Reader.

†To this number are to be added the four Professors of Fine Arts recommended in Chapter XIV-D, Paragraphs 158—164; and the (say) four chairs for Medical research recommended in Chapter XIV-C, paragraphs 154-155.

The following subjects should be left to College Professors recognised as University Lecturers :—

Latin	1
French	1
German	1
Pali	1
Arabic	1
Avesta Pehlavi	1
Total ..	6

89. Masters' Degree Courses.

We think that the course for the M.A. and M.Sc. degree should provide for two years' study after graduation, and that only those who have graduated with Honours should be admissible to the Master's Courses. For the M.A. and M.Sc. degrees, candidates should be required to study the same subject as that selected for their "principal" subject in the B.A. (Honorary) or B.Sc. course. Mr. Jayakar thinks that this should be the ordinary rule, but that the candidates in special cases should be given greater freedom. The M.A. and M. Sc. degrees should be awarded on the result of either (*i*) and examination ; or (*ii*) an examination combined with a thesis approved by the examiners after oral discussion with the candidate ; or (*iii*) research, conducted under the direction and supervision of the Post-graduate Committee (or an authority appointed by it) and embodied in a thesis. Whether any one or more of these three methods of award should be adopted should be determined in the case of each branch of study by the Academic Council on the recommendation of the Board of Studies concerned. The Committee recommend that, wherever practicable, the method of thesis shall be employed. It is imperative that research work shall be based on a solid foundation of acquired knowledge and we do not think it desirable to exclude examination at this stage, for that is still our best available means of testing knowledge. On the other hand, the University must also have at this stage means of directing and testing methods of study and of setting forth the results of study, and so we recognise the necessity of also admitting other methods than examination, methods which are proper to the highest stages of learning.

90. Doctorate degrees.

In addition to the existing Masters' degrees we recommend the institution of doctorate degrees. We are here recommending a measure which, since the end of the war, has been adopted by almost all the universities of Great Britain for the encouragement of research and advanced study. It is a method which seeks to relieve the mature student from the embarassments and restrictions necessarily imposed by examination. It demands first of all that the student shall satisfy the authorities that he has the basis of knowledge requisite for research. This involves a troublesome system of registering and estimating the various degrees

and academic qualifications of students from all parts. Secondly, it involves a continuous study for at least two years of some problem selected under advice and investigated under direction in libraries, laboratories and seminar class rooms provided by the University or recognised and approved by the University as suitable for the purpose. The students may come from any University, for they will be led to undertake their research studies wherever they conceive the best facilities for their purpose are granted. As has been said, the system revives " one of the best institutions of the Middle Ages, the wandering scholar, a man who went from one end of Europe to another and who was always at home because he was always in the same clime of culture ". (Professor Whitehead. Conference of Universities of Great Britain and Ireland, 1924.) There is, we are sure, enough basis in the ancient history and culture of India to justify the belief that such a quest after truth and knowledge will be pursued by Indian students irrespective of limitations of clime and nationality. The object of these degrees is not so much to promote the acquisition of knowledge or even the advancement of knowledge as to teach students how to render their knowledge available. " The essence of the Ph.D. degree is that it is a final stage in training students, by giving them initiative and ability, to apply their knowledge to concrete definite circumstances and to *wild* circumstances. When you get an examination paper you have a tame problem put before you. The examiner has been over it before and has tamed it down and it has definitely got an answer—unless providentially the question is wrong. The candidate knows that the question is on something within the schedule. So you get your students in a thoroughly receptive frame of mind. But to turn out people who are learned and purely receptive is an outrage on human nature. The real purpose of these degrees is to put on that final touch, initiative and knowing how to deal with concrete definite circumstances by the utilisation of accurate general principle ". (Ibid.) Again, speaking of Science, Professor Burstall of Birmingham University says, " In common with all the other universities we agreed to require a minimum of two years from the bachelor's degree : this, however, has not proved sufficient. Really good Ph.D. work cannot be done in less than two years from the M.Sc. which means three years from the first degree, which is in accordance with the system as laid down by the University of Cambridge where the whole matter of the Ph.D. degree was first raised in 1919. " (Ibid.)

91. Our proposals re " research " degrees.

Such is the system of Doctorate degrees in England. It must be pointed out that in Science, if properly administered, " the cost is very high and universities must be prepared to expend a large sum on each Ph.D. student who takes to serious research work. " In Europe, the system presupposes in all subjects work done in approved conditions and under direction and observation. Ultimately, the system and its methods will no doubt be fully applicable to our Masters' degrees. At present, as we said in the last paragraph, we think it is only partially so. But we think that it is desirable to build up such a system of " research "

degrees and provided these Doctorate degrees are not treated as merely honorary degrees but are given for theses embodying the results of work done in approved conditions and under the observation and direction of responsible and competent teachers we think their institution will materially promote the development of advanced study. They might be controlled by machinery similar to that approved by the Senate in 1924 for "research" degrees. The degrees we recommend should be awarded not less than 2 years after an M.A. or corresponding degree, on an approved thesis. This thesis should show—especially in the case of students of language and literature—an ability to use with accuracy and some degree of grace, the language employed as medium of expression, and a knowledge of methods of research: it should also be in some sense a contribution to knowledge, whether "a new correlation of accepted facts or a new deduction from them or a discovery". Holders of the degrees would be entitled.

(1) Doctor of Literature (D.Lit.): for study of language and literature.
(2) Doctor of Philosophy (Ph.D.): for study of Philosophy, Psychology, Education, History, Economics, Sociology, or Mathematics;
(3) Doctor of Science (D.Sc.): for approved research embodied in a thesis in any branch of Science or Mathematics;
(4) Doctor of Law (D.L.): for study of Law.

It should be open to the University to accept, in special cases, published writings in lieu of a thesis written under direction and observation.

92. Encouragement of Research.

We have received many valuable suggestions from witnesses for the encouragement of the spirit of research and of research activities in the University. Some of these are included in the scheme outlined above. Of others we now proceed to make brief mention. The following involve additional expenditure and can only be tried as funds permit and where there is a reasonable expectation that the expenditure will not induce merely mechanical and unprofitable collection of data:—

(*a*) Our attention has been particularly drawn to the *Mellon System of Industrial Fellowships* initiated at the University of Kansas, U. S. A., described by Professor R. K. Duncan in his "*The Chemistry of Commerce*". It consists "in giving the manufacturer the privilege of founding in the University a temporary Industrial Fellowship for the investigation of a specific problem, the solution of which would mutually and materially benefit both the manufacturer himself and the public". The manufacturer supplies the money for the Fellowship and for any special expenditure on apparatus or materials required for the investigation. The University supplies a competent investigator and a Laboratory suitably equipped for general research. Any discoveries resulting are the property of the manufacturer for an agreed period, subject to payment of a proportion of the net proceeds of the discovery to the Fellow. The manufacturer agrees to consider an offer of employment

to the Fellow on completion of the investigation and the University secures the right of publishing the Fellow's monograph on the investigation when the period of secrecy expires. This scheme appears to us one which the University of Bombay should introduce if and when it develops a Science Department of its own. In the meantime it might be worked in connection with any Laboratory adequately equipped, approved by the University, and willing to collaborate, such as those of the Royal Institute of Science. If our recommendations are carried out with regard to the opening of a Technological Department at the Royal* Institute of Science, that Institute would be particularly suitable for a trial of the scheme. In the following chapter (paragraph 98) we revert again to this scheme.

(*b*) The provision of *Research Fellowships* we regard as a very desirable measure. These should be distinct from *Post-graduate Scholarships* which we also advocate. We suggest that twelve of the latter of the value of Rs. 50 per mensem should be established, tenable for two years, six being awarded each year. We design these to be University Scholarships to assist those who are studying for a Master's degree, and to be held on conditions similar to those of Dakshina Fellowships. The *Research Fellowships* should be of the value of Rs. 150 p.m. tenable ordinarily for one year (renewable for a second year in special cases), designed to maintain a student while undertaking a definite approved piece of research which requires his whole time and attention. Such scholarships would ordinarily go only to those who held a Master's degree, *e.g.*, to a Master of Teaching who obtained leave from his post in a school to conduct experiments or investigation into mental tests in India.

(*c*) The University already gives *grants in aid* of the publication of *research work*, the purchase of books or expensive apparatus for research, the cost of touring in search of research materials : it also rewards research work of merit by the purchase and distribution of copies. For this work, however, it has at present only Rs. 3,500 available each year : the amount should be at least doubled.

(*d*) We have already stated (Chapter VII, paragraph 76) that recently the University decided to devote all the funds at present available to its scheme of post-graduate research and to drop the *occasional lectures*. But as Dr. Giles (Cambridge) stated at the Universities Conference of 1924, it would help research students a great deal if it were possible to provide lectures by great specialists on their special subjects, to encourage the students and explain the point which the specialist in the

*We assume that the University will shortly grant affiliation to the Royal Institute of Science. Mr. M. R. Jayakar adds a note about the Institute at the end of this Chapter.

subject has reached. Bombay, the gateway of India, is well situated to obtain such lectures from the numerous specialists visiting India, and funds should be devoted to that purpose.

(*e*) We have already stated (Chapter VII, Sec. 2) that great progress has been made in developing the *University Library*. It is still, however, of so small dimensions that it cannot compare with University libraries outside India. It is open also to the criticism that it caters too much for the general student, not enough for the research worker. That is perhaps inevitable with a library that has had within a decade to supply from the beginning the needs of a whole university. Nevertheless, we are inclined to agree that it has now reached a stage when it may expect the further needs of the undergraduate student to be supplied principally by his college library and devote more attention to the post-graduate student. Much that is supplied for the latter will be useful to the former also, especially the student of Honours. In particular the Library should strengthen its supply of learned journals and especially of complete sets. In certain subjects, *e.g.*, Sanskrit, it should subscribe to a more representative collection of European journals other than English. Some departments have been almost entirely neglected, *e.g.*, Geography. Certain departments it should make specially its own and endeavour to build up a complete reference library: we suggest in illustration Education in India, the History of Bombay, of the Bombay Presidency, and of the British in Western India, Marathi, Gujarati and Kanarese History, languages and literatures, Parsi History, Arabic and Persian languages and literature, etc. It is unnecessary to make any attempt to supply the needs of advanced science students, that being now undertaken by the library of the Royal Institute of Science. It should concert a scheme of co-operation with the Royal Asiatic Society and other libraries with a view to avoid unnecessary duplication of expenditure on the lines alluded to in Chapter IX. Lastly, being essentially a *student's* and scholar's library, it should specialise in materials for the assistance of the students, such as bibliographies, indices to periodical literature, encyclopædias and reference books generally.

(*f*) Many witnesses have suggested that the University should open a *Publication Department* and conduct a *Press*. Such a department could usefully publish, among other matters, the following:—

(i) Selected theses submitted and approved for degrees;

(ii) Selected papers embodying the results of research by university and college teachers or graduates;

(iii) Critical editions of the texts of standard classics, especially oriental classics, prepared under university authority (notes and editorial remarks to be limited in general to textual criticism);

(iv) A University journal (quarterly);
(v) Lectures delivered under the auspices of the University, and précis of such lectures;
(vi) Charts, maps, pictures, picture post-cards (like those of the British Museum) in illustration of materials of study for school and college;
(vii) Scholarly catalogues of the contents of museums and libraries;
(viii) Bibliographies on special subjects;
(ix) A manual of educational information for students;
(x) Question papers of the University of Bombay;
(xi) Extension manuals, *i.e.*, simple hand books on various subjects *in the vernacular* for adult non-collegiate students, on the lines of the *Home University* and *People's Libraries* and the *Cambridge* and *Oxford Manuals.*
(xii) The work of individuals, at the author's risk or on payment of royalties.

Such a Publication Department would obviously require careful management. The Academic Council might appoint a standing committee to prepare schemes of publication, but should submit all such schemes for sanction of the Syndicate. A special fund also would be necessary to meet remuneration of editors and authors, the cost of printing and distribution and to meet any loss on publications printed for sale: a store room also would be required. Though involving some risk, we think the benefits it would confer would justify an experiment in this direction under strict control by the Syndicate. The establishment of a University Press on the other hand, we think, is a measure to be held in view, but not one that can at present be undertaken: it would involve very heavy expenditure and would demand expert, technical knowledge and skilled management. The risks involved we think too great and recommend that the University Publication Department should employ private presses, retaining control, however, of its publications.

93. Other measures of encouragement of research.

There are *other measures* and considerations deserving of mention *which do not directly involve expenditure by the University* but which would greatly contribute to encourage activity in research.

(*a*) We have already (Chapter VII, paragraph 80 *fin.*) remarked that University Professors and Readers must not be so burdened with lecturing, tutoring and administrative work that they have no leisure for private study and investigation. This implies that both University Departments and College staffs are adequately staffed and organised. The Royal Commission on Oxford and Cambridge draws attention to the undesirable curtailment of the teacher's leisure for his own researches that is being brought about at those universities by the increasing demand for tutorial guidance.

(*b*) We have also said above (paragraph 90) that training in research is a training in independent thought and initiative. This

implies that the University must make the most careful selection and supervision of its teachers, must construct well thought out and co-ordinated courses of study, exercise discrimination in permitting students to enter on Honours and post-graduate courses, secure that both undergraduate and graduate obtain from their tutors personal guidance in their work, and emphasize the importance of *all* students being in some degree acquainted with scientific method and the development of science.

(*c*) At the Universities Conference in England in 1924 Principal Robertson of Birmingham emphasized "the urgent necessity for the Universities of co-ordination of work and resources, particularly in real research work, and the dependence of so-called applied science on the fundamentals—the pure sciences and especially on Mathematics and physics." Here are two considerations of great importance. It behoves the University of Bombay, if it is going to contribute anything to research, to provide the necessary organisation. Co-operation between the Universities of India can be effected through the Inter-University Board and Conferences in which this University has recently agreed to take part. A valuable measure in itself, as well as because it promotes co-operation, is an interchange of Professors between Indian Universities or between Indian and British, American or other. Co-operation between the different institutions of this University and between the University and other learned or scientific institutions and societies, with a view to co-ordination of aims, effort and expenditure, is equally important. This demands the constitution of some body representative of the University and of the principal learned societies of the Presidency, which could mark out for the Presidency fruitful lines of investigation and problems, local or general, awaiting solution. The Senate of the University, if properly constituted, would supply such a body, and its Committees of post-graduate studies should supply expert advisers on this matter. The second consideration is one which is apt to be forgotten in Bombay in the absence of applied science teaching. We shall have occasion in Chapter XIII to speak again of it. We may here add a quotation from Sir E. John Russell (Director of the Rothamsted Experimental Station), which protests very emphatically against making science merely utilitarian and practical in its purpose :—"I should be preaching to the converted if I stopped to insist that research in pure science is essential before progress can be made in applied science. And most certainly no attempts should be made to give research work a practical turn."

(*d*) Principal Robertson of Birmingham, on the occasion already referred to, called attention to a tendency which has manifested

itself in India also. " Quite recently the Committee for Scientific and Industrial Research has uttered a considered warning against the predominance of Chemistry and specialization in Chemistry and the comparative neglect of the biological sciences, with the inevitable result that University-trained chemists are becoming a drug in an overstocked market: while both from the employment market and the research point of view the demand for those adequately trained in the main branches of the biological science is greater than the supply." We do not suggest that this stage has been reached in India, but desire to point out that it affects the whole science teaching of the University from school upward: and that in India there is in medicine, sanitation, irrigation, agriculture, forestry and even in chemistry itself (to mention only a few) very much to be done that can only be done by those who have had a sound biological training.

(*e*) The University must be prepared to recognise for post-graduate work any institutions that can and will make adequate provision for direction and guidance of students. There are not many such in this Presidency but in Poona there are certainly some.

(*f*) It is possible that the institution of diplomas for distinction in specialised study of a particular subject, *e.g.*, Ophthalmology, might have an encouraging effect.

(*g*) It is probable that useful work could be done by setting up committees of voluntary workers in special lines, *e.g.*, of professors and scholars to collect, or discover the existence of, manuscripts or materials: or of men willing to undertake collection of data and statistics for some particular investigation: or local and rural committees (including representatives of the University) to collect data in a locality for historical, economical and especially sociological purposes.

(*h*) In Chapter IX we emphasize the importance of making the University more representative of the industry and commerce of the Presidency so that it may keep in closer touch with the life of the community.

Note G.

By Mr. M. R. Jayakar, on the Teaching of Science by the University.

I have agreed, not without hesitation, to the recommendation that the Royal Institute of Science should, for the present, be utilized by the University for post-graduate studies in Science. The reasons for this view are stated in our Report. I am, however, looking forward to the day when the University will make its own arrangements, for post-graduate studies, in such an important department of knowledge as

Western Science. I should like to hasten the advent of such a day. I am aware that this means a very large outlay which, in the present state of the University's resources, it is not possible to secure. But I will urge that, as soon as arrangements can be made for a separate Science School under the complete dominion of the University, the step should be taken. There are reasons, in my opinion, which make any arrangement with the Royal Institute of Science undesirable except as a provisional measure, unless it becomes possible, by some means not clear at present, that the Royal Institute of Science is completely merged in the Bombay University.

M. R. JAYAKAR.

CHAPTER IX.

RELATION OF THE UNIVERSITY AND THE PUBLIC: ADULT EDUCATION AND EXTENSION COURSES.

94. The growing consciousness of the need for a closer relation with the public.

The need of bringing the life and work of the University into more direct touch with that of the public and more particularly with that of the leaders of industry, commerce, and civic life in the city of Bombay has for some years been exercising the University. It was a favourite topic of Professor Patrick Geddes, Professor of Sociology, and he was perhaps more active than any other individual in bringing the need home to the University. In 1921 Dr. Mackichan attended the Congress of the Universities of the Empire as representative of this University and opened his report by commenting on how much the younger universities in Great Britain were indebted to the interest and generosity of the cities in which they stand. Shortly afterwards the Syndicate appointed a committee to consider and propose means of effecting a collaboration between the University of Bombay and Bombay City. In Appendix (No. 11) we print the opening paragraphs of this Committee's report, which express clearly the University's sense of what is lacking. The actual suggestions of the somewhat lengthy memorandum we shall only summarize.

95. The report of the Syndicate's Collaboration Committee.

The first suggestion of the Committee is that contained in the last paragraph of the extract in Appendix No. 11. Similar suggestions for making the Senate of the University more representative of the community as a whole and of industrial and commercial interests in particular come to us from many witnesses and in Chapter XVI we have attempted to satisfy this demand in the composition which we suggest for the new Senate. We there propose that out of a body numbering 150 not less than 37 be elected representatives of the general public, *viz.*, 24 representatives of public bodies and associations (including ten representatives of business interests), 4 representatives of municipalities, 4 of District Local Boards and 5 non-official members of the Legislative Council. Should this proportion of elected representatives of the business world not be felt sufficient, it might be increased by the Senate to which it is proposed to give power to co-opt 15 or by the Chancellor to whom we give power to nominate 33.

96. Professor Geddes' suggestions: General.

Of the suggestions in the memorandum made by Professor Geddes the most important and most practical are the following. The University, he urges, must widen the scope of its aims and the sphere of its activities so as to keep in touch with the ever-widening activities of the general life of the community and supply the new needs of the public. In particular,

it must take account of recent developments in the material conditions of life and get into touch with the leaders of industry, commerce and municipal administration. To effect this, the Senate must be more representative: and the University must add a variety of departments to those which as a teaching university it now undertakes. Secondly, it must formulate and proclaim to the public a new policy, its determination to expand and intensify its work till it cover all sides and departments of the life of the community. It must proclaim that its aim is not merely culture for the classes but also the investigation and development of the community's material resources for the benefit of industry and commerce: and still further the extension of its scope to include the education of the masses for the enjoyment of a wider and more real citizenship. Thirdly, the University must claim that for these ends it is entitled to ask the direct and indirect co-operation of all classes, but especially of the industrial and commercial classes, because they have the financial means to help, and because they will directly profit by this co-ordination and collaboration of practical business efficiency with many sided enlightenment. We think that all will approve of the policy that Professor Geddes thus sets before the University and we have had it in mind in many of our recommendations.

97. Professor Geddes' suggestions: Specific.

While some of Professor Geddes' more specific suggestions are unacceptable to us, there are others which we gladly endorse. These are mainly directed at securing correlation and co-operation between individuals or public bodies in investigation of municipal and other problems: between the departments of the various colleges and the University in economic investigation: between the public libraries of India: between universities in congress. Again he seeks to correlate and unify the various branches of knowledge (especially humanistic and naturalistic, orinental and western learning) by instituting comprehensive courses of instruction, *e.g.* on Civilisation, World History, Outlines of Science. Such courses are not uncommon in America. He mentions the scheme for an Aquarium as an illustration of what collaboration through a single institution might do to promote the interests of Indian fisheries, of science and of popular education.

98. Dr. Mann's suggestions.

A similar memorandum by Dr. H. Mann, with reference to research in applied Science, gives a list of institutions in and outside Bombay with which the University might be able to arrange collaboration; and happily illustrates how University and Industry may work together by supplying two lists of practical problems in industry awaiting solution drawn up by Sir Fazulbhoy Currimbhoy and Mr. N. D. Saklatvala of Messrs. Tata Sons and Company. Dr. Mann insists on the urgent need of scientific research and suggests that the University should undertake to organise collaboration for this end and to administer any funds devoted to this purpose. He suggests a modification of the Mellon system

of Industrial Fellowships to which we have already alluded in the previous chapter [paragraph 92 (*a*)]. "The plan I would suggest in this connection is a modification of the American system of research scholarships given for a limited period of time by individuals or bodies of individuals for the solution of specific problems. Thus for instance, to take one small example of increasing the present resources in tanning materials, I would suggest that an amount of Rs. 10,000 per annum should be made available for a period of five years. If this were guaranteed then the Committee would get into touch with the laboratories or institutions most suited for this purpose. It is obviously a combined botanical and chemical problem, and consultation would take place therefore between the Committee and botanists and chemists available and the line of work would be planned and sufficient inducement would be offered to attract one or more of our brilliant young men, and the work would be undertaken in the Institute which seemed most suitable under the direction of the best scientific service available. Annual reports of progress would be made and any results obtained, which seems applicable on a large scale, would be communicated to the subscribers, and, if they have no objection, published for public use."

99. Endorsement of the proposals of the Collaboration Committee.

The Collaboration Committee reported in March 1924 to the Syndicate its general approval of Professor Geddes' and Dr. Mann's suggestions and proposed that the institutions named should be approached and that, if they agreed to participate, the public and public bodies such as the Chamber of Commerce, the Millowners' Association, etc., should be asked if they could utilise and support such an organisation. It suggested various forms which that support might take, *e.g.*

(i) the contribution of funds for research into particular problems of industrial importance:

(ii) the endowment of industrial research in general, leaving the subject of research to be settled by the organization:

(iii) the provision of specialists such as an authority on chemical engineering, in order to fill gaps which at present exists to the hindrance of the development of this kind of work.

(iv) Lastly, it resolved that an endowment fund be inaugurated with the initial contribution of Rs. 5,000 made by Mr. D. M. Wadia.

So far as we are aware, no further action has since been taken by the Syndicate or the Committee in this matter—which is itself proof how inadequate the existing machinery of the University is to deal with the numerous matters of importance that come before it. We think that the suggestions made by the Committee, if carried further, would materially contribute to the progress of research and to secure an active interest in university work; that they constitute a useful beginning and should be followed up by further energetic efforts to obtain funds for the purpose.

100. Points in which the University fails to supply public needs.

It is affirmed by various witnesses that the curricula of the University do not adequately supply all that is needed by the public in those whom the University trains for professions. We shall deal with such defects in the chapter on Professional Education. Two other deficiencies may be mentioned here. It is said there is a demand for journalistic training which the University does not but should supply. We think that the time has come when the University should recognise the needs of the profession of journalism and consider the desirability of making this a post-graduate subject in connection with Sociology, Politics and Economics. It is also complained that the University supplies little or no training in the arts necessary for public life, in civics, public speaking, municipal administration, social organisation, and generally every-day science and present-day problems. It is pointed out that these are matters on which the Indian Civil Service Commissioners now set an examination paper. A further complaint is that no provision is made here as at Cambridge for training youths for the specific duties of the higher public services. We agree that these are matters training in which should form some part of a university activities : but we think that so far as they are not already included in the university curriculum, training in them must be mainly supplied indirectly through college debating and other societies. But we think that, since the Indian Civil Service Examination is now conducted in India, the university and colleges should make adequate provision to assist those entering for that or other high service examinations.

101. The Committee's recommendations : co-operation with semi-public institutions.

We have spoken so far in this chapter of co-operation of the University with the public in general and the professional, industrial and commercial world. Co-operation is equally important with semi-public institutions supported by subscription or endowment, for the purposes of learning and literature. We mean such bodies as the Royal Asiatic Society, the Natural History Society, Art Society, Servants of India Society, the Museums, Hospitals, Botanical gardens, public libraries, etc. The University may establish close relations with them in a variety of ways ; by money contributions if funds permit ; by reciprocal exchange of facilities, mutual representation on each other's governing bodies, and concerted programmes of educational work. Where institutions are willing and able to grant students of the University adequate facilities for study and systematic direction and supervision, they may be recognised as schools of the University. The University may obtain both lecturers and materials to illustrate lectures from such institutions, and may in return supply them or contribute to the cost of their supply. Thus the Prince of Wales Museum has countless materials for university and public lectures on epigraphy, numismatics, sculpture, art, embroidery, armour and weapons, etc. The University should be able to supply the Museum with scholars to assist it in identifying and cataloguing its treasures.

Similarly the Natural History Society has very valuable collections of specimens of the mammals, birds, reptiles, molluscs, insects and flora of India. These it is prepared to place at the disposal of advanced students and research workers, in return for financial assistance to provide the additional storage, equipment and accommodation necessary for a re-ordering and revision of its collections. The Society is also willing, if assisted, to prepare and publish for the University popular charts, pamphlets and lantern slides on flora and fauna that would encourage a real Indian nature study. Co-operative work of this kind would be of the greatest value to the University and contributions to Societies or Institutions for such purposes would in our opinion be a legitimate and very economical charge on University revenues. And such co-operation, it is to be remembered, is not merely a means to research or to graduation : it is even more urgently necessary as a means to popular education. Concerted work of this kind may be the beginnings of a system of University Extension and Mass Education.

102. Co-operation between Libraries.

Equally valuable would be the sort of co-operation proposed to the University Library by the Bombay Branch of the Royal Asiatic Society and the Cama Oriental Institute—

(i) that they give each other representation on their committees :

(ii) form a common committee to divide the field of learning for purchase of books and manuscripts :

(iii) arrange detailed conditions of free loan of books, etc., between each other :

(iv) suggest distinct lines of research suitable for each : and

(v) select a scholar to draw up a periodical report on what is published abroad on oriental matters.

In Chapter VIII, paragraph 92 (*e*), we have already spoken about the University Library's contribution to research. Here we are dealing with co-operation between the University library and other libraries. The idea of a single central library in Bombay cannot be entertained in present conditions. But some arrangement should be arrived at between libraries in Bombay for specialisation in distinct directions. Books of advanced science will, under our scheme, be provided only in the library of the Royal Institute of Science (special branches, *e.g.*, medical, bacteriological, in special institutions) : the Cama Institute might specialise in Zoroastrian literature, the University in education, etc., and so on. The libraries should exchange catalogues and keep each other informed of their latest accessions and the facilities they are prepared to offer to each other's readers. For purposes of such co-operation an annual conference of librarians in Bombay would be useful.

103. "Extra mural" Adult Education and Extension Courses.

In Chapter VII, paragraph 83, we have already drawn attention to the responsibilities of the University to the community at large and

particularly to the numerous class of adults who have not been able to proceed to or complete a university education. We here think it necessary to dwell at some length on the problem, how far this University can and should make provision for extra mural adult education (*i.e.*, the education of adults outside the regular degree courses of the University).

I. Its importance.

The problem of Adult Education has been recently explored at length in the report, dated 1919, of the Adult Education Committee appointed by the English Government: also in the Reports of the Royal Commissions on University Education in London 1913, University Education in Wales 1918, and Oxford and Cambridge Universities 1922. The first emphasizes that Adult Education is "a permanent national necessity, an inseparable aspect of citizenship and therefore should be both universal and life long", and that it "should be spread uniformly and systematically over the whole community as a primary obligation of that community in its own interest", (page 5): and that "the provision of a liberal education for adult students should be regarded by universities as a normal and necessary part of their functions". The Royal Commission on the University of London asserts "these men and women desire knowledge not diplomas or degrees; and we think that no university, above all no city university, would justify its existence that did not do its utmost to help and encourage work of this kind. Such work is not essential to a university in the narrower sense of being a condition of its existence, but it is essential in the broader view which lays upon a great seat of learning the duty of using its talents to the utmost and offering its treasures freely to all who can benefit by them and sincerely desire to do so" (Sec. 79). The Royal Commission on London and that on Oxford and Cambridge Universities (Section 148) agree that extra mural activities of universities must cease to be side-shows and appendages and be definitely accepted in all universities as an established and essential part of the normal work of a university. The Adult Education Committee and the Royal Commission on the University of London both point out that the benefit is reciprocal. Adult Education is of necessity intimately concerned with and directed towards the current intellectual and emotional activities of the people in general and when a university undertakes adult education, it is brought into direct contact with those classes which in reality constitute society and with the activities which supply all the materials for university study. Adult Education keeps a university in touch with reality, with human nature as it is in actual life and with the real, not theoretical, conditions of living and thinking. "The wider the range of experience upon which universities draw and the more diverse the characteristics and aims of the students attending them, the richer is likely to be their intellectual life, and the more vigorous their influence upon the community" (Adult Education Report, Sec. 184). Practically every University of Great Britain conducts some form of extra mural education for adults and more particularly tutorial classes (Adult Education Report, page 192). And the most recent Educational Commissions have strongly recommended a larger application of university resources to adult education.

II. Its main principles and features in England.

(1) It can only have a permanent existence and flourish where there is a spontaneous demand for it and co-operative endeavour to maintain it.

(2) Its organisation must be largely voluntary and mainly supplied and controlled by those who demand and participate in it, *i.e.*, the workers.

(3) It must begin its work from the concrete, from the actual interests, occupations, customs, and aspirations of the student. The current intellectual and emotional activities of the masses are what give it both driving force and material.

(4) Its aim is to create an understanding and bring about a realisation of a more intelligent active citizenship; and the motives of those who demand it are therefore not selfish but socialistic, a desire not of degrees and diplomas but knowledge, not personal advancement, material or social, so much as the improvement of society.

(5) Hence the studies preferred are humanistic rather than professional or vocational, more commonly from the Faculty of Arts than of Science, *viz.*, Languages, Literature, History, Political Science, Economics, Philosophy.

(6) The best results are obtained when the adult students' work is continuous and systematic, not intermittent; when it consists of active individual effort, not passive listening to lectures, however large the audience; when it is accompanied by personal, tutorial work on the part of the teacher.

III. Its methods of teaching and forms of organisation.

These are numerous, especially among voluntary associations. University organisation has generally been of the following kinds (*vide* the Report on *Oxford and Cambridge Universities*, page 121 and *Adult Committee's Report*, page 182):—

(*a*) University Extention Lecture Courses supplemented by classes, written work, examination and certificates, conducted at various centres.

(*b*) Summer Meetings of University Extension students, held in vacation at the University, with lectures from University and College Professors with the object of supplementing the teaching and providing for exchange of ideas among students, etc.

(*c*) Tutorial classes consisting each of a limited number of students who agree to study for three years a subject chosen by themselves under a teacher supplied by a committee of university and working men, the standard aimed at being that of a University Honours subject and the method being that of discussion, exposition and directed reading and essay writing.

(*d*) Summer Schools, concentration of selected tutorial students at the University during the vacation for tutorial work under University College Professors.

(*e*) Various other arrangements, *e.g.*, advanced courses of 24 weeks for those who have completed the 3 years tutorial scheme: public popular lectures, whether single or in short series: a class to train tutorial students to conduct preparatory classes and study circles: facilities granted by University institutions to advanced students for study in the evening.

(*f*) The Royal Commission on London University recommended the establishment of an evening Constituent College of the University to be used solely by evening students and to supply for them a full course of study for a first degree (Sec. 75 and 149-150).

(*g*) There are many special permanent colleges for the education of adults, variously related to universities, *e.g.*,
(i) residential, Ruskin College, Oxford,
(ii) non-residential, London Working Men's College.

IV. How University Adult Education is financed in England.

(Oxford and Cambridge Report, Sec. 149.)

Oxford and Cambridge Extension courses or Local Lectures are maintained principally from the fees of students paid to the local centres. In some cases grants are given by local authorities or by the Board of Education. Oxford University and the Oxford University Press contribute (for secretarial and office expenses) £550 out of the total income of £4,533. At Cambridge, similar expenses have hitherto been met by a contribution of £767 from the profits of the Cambridge Local Examinations.

The expense of University Tutorial Classes, except the general organising and local expenses, are borne by the Joint Committee of representatives of the University and Working Men's Associations. Local expenditure is met from students' fees, fixed with due regard to the poorest student, any deficiency being met by the local voluntary organisation. The classes pay a fixed sum to the Joint Committees, which sum includes any grant from local authority or Board of Education. The University and individual colleges similarly pay a sum to the Joint Committee. The contribution of Oxford is £600: three colleges contribute Fellowships for Tutorial Class Tutors. The Oxford and Cambridge Royal Commission have recommended a special grant from Government to Oxford and Cambridge of £6,000 a year each for developing their extra mural work. Government has increased their grant for this purpose.

V. Organisation of University extra mural work at Oxford and Cambridge.

Until recently Extension Lecture work was managed by a Delegacy (Oxford) or Syndicate (Cambridge), directly (Oxford) or through a committee (Cambridge). The Delegacy or Syndicate appointed, for

the administration of tutorial classes, a Joint Committee of equal numbers of representatives of the University and the Workers' Educational Association. As a result of the reports of the Commissions on Adult Education and on Oxford and Cambridge Universities, the universities each now have a department or Board of extra mural education with two Committees, of equal status, for Extension work and Tutorial Classes, *each* Committee consisting of equal numbers of representatives of the University and the approved organisations which provide the basis of the local work.

VI. Adult Education in Bombay.

(*a*) The Bombay University has so far attempted nothing of the kind.

(*b*) Individual Colleges at various times have done a little.

(*c*) There are various voluntary non-collegiate associations, uncoordinated and working with various motives and aims, religious, humanitarian, political, social, communal, *e.g.*, the Social Service League, Servants of India Society, Seva Sadan, Young Men's Christian Association, Young Women's Christian Association, Depressed Classes Mission, St. John's Ambulance, Red Cross Society, Sanitary Associations, etc.

(*d*) Bombay is in the position of England in the middle of the nineteenth century, with a very imperfect elementary education system and consequently no secure foundation of knowledge in the student to build on; and a very restricted higher education, and consequently a very small body of persons available for teachers (*Adult Education Report*, page 128).

(*e*) Such demand as exists appears to be :—

(*i*) that of the working and labouring classes for elementary education and a knowledge of sanitation, hygiene and the elements of civics. It would appear to be the function primarily of the Education Department and voluntary Associations to supply this;

(*ii*) that of the rural population for an elementary knowledge of agriculture. This appears the business of the Education Department;

(*iii*) that of persons engaged in the towns in clerical or commercial vocations; this demand is probably largely for instruction in the technique of a vocation, which should be supplied by voluntary Associations or by Continuation or Evening Classes organised by the Educational Department;

(*iv*) that of a lower and upper middle class for a humanistic culture and especially a knowledge of politics and civics. This is the kind of demand a *University* should aim at creating and supplying;

(*v*) there is a great need of, though only a moderate *demand* for, a knowledge of hygiene and medicine. At present Government in the Medical and other Departments, Municipalities and various voluntary Associations endeavour to supply

this. It is for consideration whether the University through its Medical and Science Departments could assist in this. Extension Courses and Tutorial Classes in Science have always been found more difficult than Arts because of the greater difficulty of getting suitable teachers and providing the requisite apparatus.

104. The Committee's recommendations.

(*i*) The University should create an University Extra-mural Collegiate Education Board of which the Vice-Chancellor and Rector and about four representatives each of the Syndicate and Academic Council, appointed by these bodies, are members. This Board should appoint an equal number of persons nominated by selected non-University organisations engaged in educational work in the Presidency, such as those enumerated in sub-paragraph VI (*c*) above. This Joint Board should then explore the possibility of the University undertaking extra-mural work such as that now done by Oxford, Cambridge and London Universities, in collaboration with the voluntary organisations: and in particular the suitability of organising a dual machinery for:—

(1) Extension Lectures and Classes or other activities immediately arising out of them;

(2) Tutorial Classes consisting of such approved courses of two to three years' duration as the students desire and the Board approve aiming at the standard of a university first degree within the limits of the subject studied. The machinery might consist of two Committees of the Board, one for each of the above methods, each Committee containing representative of both University and non-University organisations.

(*ii*) This educational work would be partly self-supporting through low fees paid by students, subscriptions raised from the local centres and contributions from the non-University associations. But the University would have to make a substantial contribution and for this purpose should ask a grant from Government and from the Municipal authorities of the locality, in each case to be paid direct to the University so that the classes may be genuine University classes.

(*iii*) The lecturers and tutors may but need not be members of the University or College staff. High School teachers would supply a considerable number. They will have to be paid salaries and travelling expenses: say for lecturers Rs. 50 a lecture (in England £2-10 to £5) and for tutorial classes Rs. 1,000 (in England £70—£85) per annual session of 24 meetings of two hours each.

(*iv*) In the abstract the award of certificates or diplomas is undesirable as tending to give a merely commercial value to the work. In practice and in India it might be desirable to encourage the demand by granting certificates.

(*v*) The lectures and tutorial work should be in vernacular or English according to the needs and desire of the students.

CHAPTER X.

THE UNIVERSITY AND SECONDARY EDUCATION.

105. The control of Secondary education.

We now proceed to consider the state of secondary education in this Presidency and the measures necessary to place it in a satisfactory condition. We cannot emphasize too much the importance of a secondary education as a preliminary to higher university studies. Neither our scheme nor any scheme of university reform will achieve the desired result unless the students coming to the University have gone through a sound course of training in the secondary schools. "We cannot expect to have good colleges without good schools", said Lord Curzon to the Educational Conference at Simla in 1905, and the Calcutta University Commission (Chapter VIII, Section 7) remarks: "The fortunes of these two great factors in national education are interdependent The one cannot flourish if the other flags." Our enquiry has abundantly confirmed these observations. In fact, our recommendations for the University are based on the assumption that secondary education in this Presidency will be brought to a proper level by the application of the remedial measures which we suggest. We expect that Government will realise their share of the responsibility in this task and will take early steps to co-operate with the University to secure the end both have in view.

106. The purpose of Matriculation.

As with the University of London, so with this University, the original purpose of Matriculation was to secure that the undergraduate had undergone a liberal education of wide range (See above, Chap. II, paragraphs 14 and 21). London once examined candidates for Matriculation in nine compulsory subjects. This University in 1859 examined them in six subjects. As the number of subjects included in the school curriculum multiplied and as there arose a demand for early specialisation, the number of compulsory subjects was reduced and optionals were introduced, till Matriculation at London ceased to be a test of a liberal education and became a test of fitness for professional or facultative studies at the University. A similar tendency has been visible at Bombay, where the candidate for Matriculation is now examined in English, a second language, Mathematics and History and the University merely requires a headmaster's certificate that he has been trained in Science, Geography and Vernacular. At Bombay, however, so far we have not introduced options at Matriculation and it may be said that here the conception of the Matriculation as a test of a sound general education has never been abandoned. Our Matriculation examination further has always been like London's an external one, *i.e.*, a test applied by a body outside the school in which the candidate has been educated, and liable to the disadvantages inherent in that system, especially that it discourages originality in teaching and may

easily fail to test a candidate's real mental powers. Lastly, until recently this University fixed an age limit for candidates for Matriculation in order to secure a minimum physical and intellectual maturity. That age limit was subsequently abandoned because it was found that all but a small proportion of the students were above the minimum age. The question then before us is whether Matriculation has still to serve the same purposes or whether conditions have so altered here that we are ripe to introduce an element of specialization in the Matriculation itself, and let those purposes be served in part or in whole by other bodies than the University and in other ways. Can we take it for granted that every student who has passed through a recognised High School has received a sound general education? Can we allow the High School boy to begin at that early stage a form of specialisation? The evidence of a large number of our witnesses and the experience of the University under the Joint Board during the last five years make us agree that these questions must be answered in the negative. The defects in the High Schools to which we refer in the next paragraph make it clear that secondary education in India has not gone beyond the provision of the elements of a sound general culture, and in a large number of schools does not even supply that. It is a common complaint of those in charge of institutions devoted to professional training that even the present Matriculation does not give a sufficiently wide or firm foundation for specialised vocational or professional training. We, therefore, think that the University must make its Matriculation examination continue to serve the same purposes as in the past, a test for all seeking admission to it of their proficiency in the essentials of elementary culture, Language, Mathematics, History, Geography, Science. Further, since it is admitted on all sides that subjects in which a candidate has not to pass an examination of the University are generally neglected by the candidate and by the schools, and that certificates of proficiency in such subjects have been granted too lightly by some Headmasters, we think that for the present our University Matriculation examination must remain an external one in the sense described above. That is not because there are no Headmasters whom the University can trust to certify their own pupils, but because the University cannot run the risk of essential elements of general culture being commonly neglected. An additional weighty reason is the desirability that the proficiency in these subjects of those entering the University should be tested by the application of a common standard. There is no authority other than the University which can set, apply and maintain a common standard of the right level.

107. High School Education deficient. This is largely due to its rapid expansion.

Nearly all the Principals and Professors of Colleges and Headmasters of High Schools, who have helped us with their evidence, agree that the student at present is insufficiently prepared by his career at the High School to enter the University. Even the Reverend J. Duhr, Principal of St. Xavier's College, who rightly deprecated wholesale and unqualified

condemnation of the educational work of the last half-century, admitted that the students who join college as a rule are inadequately prepared for entering upon university education. Principal Shahani of the D. J. Sind College was satisfied that the present High School preparation is adequate, but all the representatives of Sind High Schools who gave evidence, almost without exception, averred the contrary. The fact, therefore, that High School education has to be put upon an improved footing, as the first essential of University reform, admits of no question. This does not imply any reflection upon the schools. Mr. K. B. Marzban, Proprietor and Principal of the Bharda New High School, which is perhaps one of the largest of proprietary institutions in the Presidency, maintained that there has been a marked improvement in teaching staffs of High Schools, that there are more graduate teachers in schools, that there is now a general awakening as to the value of training of some sort being given to every teacher in every school—that improved methods of teaching are more largely employed and that more attention is given to physical exercise, practical work in science and so on. We gladly acknowledge the valuable improvements in these and other directions that have been introduced by zealous and devoted proprietors and Headmasters. At the same time, we cannot help observing that there have been instances where proprietary schools have been carried on more with an eye to profit than to high educational ideals. It is obviously impossible to say what proportion of schools belong to this undesirable class; but, whatever it may be, it goes without saying that their effect as a whole is to lower the tone and standard of education. We should also take this opportunity of referring with appreciation to the several Educational Societies which have come into existence, on the model of the Deccan Education Society, in which a band of enthusiastic young men, usually graduates, bind themselves to serve for a certain period of years on small salaries in the High Schools conducted by these Soceities. Some very good High Schools are maintained by such organizations which form, particularly in Maharashtra, an admirable feature of educational enterprise in this Presidency. But for the generous manner in which private enterprise, in this and other ways, has risen to its opportunity, secondary education in this Presidency would have utterly failed to keep pace with the large expansion of primary and university education during the last quarter of a century. The defects, such as they are, are largely incidental to the rapid expansion of secondary education. Prior to the Universities Act of 1904, the Bombay University kept no list of recognised schools but admitted anybody to the Matriculation examination on production of a certificate of good character; or if he preferred to appear as a school candidate, with an additional certificate from the school-master merely certifying the fact of his attendance at school (Orange, Quinquennial Report 1902-07, p. 70). The Act of 1904 required that candidates for the Matriculation should have gone through a recognised High School. The result was a great impetus to the starting of High Schools. There were 105 High Schools with 25,419 scholars in 1901-02 in this Presidency; in 1906-07 the numbers had increased to 114 and 31,842 respectively. In the next quinquennium the number of

schools increased to 129, and the scholars to 41,429. Their number continued to increase throughout the country during the succeeding five-year period at a rate which called forth the first note of warning from the Educational Commissioner, Sir H. Sharp, who wrote in his review: "The apparently inexhaustible demand for secondary education, combined with the difficulty of meeting it in an adequate manner, tends to swamp the effects of reform." (Owing to the exclusion of institutions in Indian States in this Presidency, a comparison of the figures in the official reviews with those of previous years does not give a correct idea of the expansion of secondary education.) The number of registered schools in the University Calendar two years ago was 239. That is to say in about 10 years, the number of schools had very nearly doubled. It may be contended that the University should not have allowed the number of schools to increase at a rate which outstripped their efficiency. But it should be borne in mind that these schools came into existence in response to a public demand; that the Bombay University has, as a rule, recognised only such schools as had previously obtained the recognition of the Educational Department; and that the consequences of leaving youths adrift, either by refusing to recognise a sufficient number of schools or of withdrawing recognition from them, have proved disastrous during the days of the Bengal Partition agitation.

108. The defects of High Schools mainly due to insufficient co-ordination with Primary Schools and University.

The University has sometimes been blamed for not enforcing strictly its regulations regarding recognition. The Sadler Commission's observations on this point apply to Bombay conditions as much as to those of Bengal. Referring to the University's powers of recognition, they remark: "Its only weapons are good advice, which most of the schools cannot afford to follow; warnings, which the recalcitrant have safely disregarded; and, in the last resort, withdrawal of recognition which would in most cases lead to the closing of the school and thus to the forfeiture of educational facilities by the district concerned." However, under the improved condition of secondary education which we expect to result by the adoption of our recommendations, it will be more easy for the University to enforce proper standards of efficiency by a stricter use of its power of recognition and withdrawal of recognition. Indeed, we think that the success of University reform is largely bound up with a strict enforcement by the University of its regulations for the recognition of schools. The defects in our High School system are mainly the result of insufficient co-ordination between it and the primary system on the one hand, and the University, on the other. There has not been enough time and funds to bring about an effective articulation of the three stages of the Educational system. Several of the witnesses complained of wasteful reduplication in primary and secondary schools. "All the syllabuses of primary and secondary schools should be re-adjusted", says Professor V. B. Divatia. "At present there is too much of repetition." The same view was expressed by other witnesses. At the other end, the complaint of the colleges is that they have to do much school

work in order to get their new admissions into touch with their regular work. The recommendations we make are designed to remedy these two main defects. We provide for the saving of two years at the primary end and the addition of one year at the college end of the secondary course, with necessary modifications in the curricula. In order to effect an improvement in these directions the view of the University should have a sufficient weight given to it in the shaping of secondary education. Professor Parker specifically mentions as one of the means of improving secondary education: "By the University controlling the work of more than the senior class of high schools, if the University has a sound plan of education for the secondary stage." Many of our witnesses advocated the use of the vernaculars as the media of instruction throughout the secondary course, as essential to its improvement. We accept this view and recommend that the vernaculars may be used as the media of instruction and examination up to and including the Matriculation stage. This question we have further considered in Chapter XI. Several witnesses have also pointed to the small proportion of trained teachers as the radical defect of the present system. The fault for the present state of things rests primarily upon Government which has the control of secondary education almost entirely in its hands. There was no training institution in Bombay till 1906. When one was started in that year, it was practically reserved for teachers in Government schools. Of the training given, Mr. Nelson Fraser, the Principal, can only say in 1908 that "some good has been done; one cannot say how much." The University in recent years made a start by instituting a B.T. degree and Government after much delay has done something to expand the Training College. We think much more must be done before this defect in our secondary education can be fully eliminated. The advantage of having a large body of trained teachers is twofold. It directly leads to the improvement of teaching. What is more important it creates a body of men professionally interested in teaching.* This question of training teachers has been dealt with by us in Chapter XIV-A. The reforms we suggest involve expenditure. Unless sufficient funds are provided, they cannot be carried out. In the words of the Sadler Commission: "The reform of secondary education has been blocked by lack of funds. The University, which bears the greater part of the responsibility for the efficiency of secondary education in the province, has not at its command the funds required to enable the schools to effect the improvements which it knows to be desirable, and indeed imperative, in the public interest."

109. The full educational course.

We have considered the report, dated 24th February 1921, of the Senate's committee appointed to consider the recommendations of the

* "If teachers understood their own professional interest, they would certainly demand to be trained. The poor esteem in which teaching is still too often held (in such glaring contrast with any just estimate of its social and national importance) is largely due to want of organization. When teachers rise fully to a consciousness of the manner in which all teachers are bound together by the common nature of their work, they will combine to insist on recognized standards of professional qualification. A consideration of the rightful dignity and influence of the profession is another strong reason for training."

Sadler Commission: also the Conspectus of a complete scheme of education laid before that committee by Dr. R. P. Paranjpye. We do not accept the proposals of the Senate committee, nor in its entirety the Conspectus of Dr. Paranjpye. The plan of the full educational course that we suggest is as follows:—

(1) *Elementary education* (age 7—11) .. ..5 years.

This course will cover what is now taught in vernacular standards I—V for those not learning English, and vernacular standards I—IV and Middle Anglo-Vernacular standards I—III for those taking up the study of English, English being gradually introduced from standard III and the course so rearranged that the child learns in 5 years what he now takes seven years to learn.

(2) *Secondary education*—

Junior (age 12—14) .. ..3 years

This course will cover what is now taught in Anglo-Vernacular standards IV, V and VI, or in Vernacular standards VI, and VII for those not learning English. On completion of his Junior secondary education a boy or girl should be provided with opportunity for vocational training, if not going to the University.

Senior (age 15-16) .. ..2 years

This course will cover what is now taught in High School standard VII and in the First Year course at College.

(3) *University education* (age 17—20) .. .. ..4 years.

Such a scheme will involve making provision for teaching English in the Primary schools, at least in the taluka centres, also a very considerable strengthening of the teaching staff in all primary schools and a complete revision of the Vernacular and Anglo-Vernacular standards. The full educational course is in this scheme one of fourteen years as against the fifteen years required by the Senate's scheme. It is believed that this saving of one year can be effected in the elementary and secondary stages by the greater use of the vernaculars as the medium of instruction and by the introduction of English a little earlier than at present and by so arranging the courses as to avoid reduplication. A university student would have completed his twentieth year by the time he takes his first degree and his twenty-second when he becomes a Master.

110. Intermediate Colleges.

The next question that arises is, in what type of institution is the transition from school to college to be effected? We have considered carefully the proposal of the Calcutta University Commission for (*i*) the institution of a Board of Intermediate Education, to control higher

Secondary education and the education at present conducted in the first two years of the University course: and (*ii*) of Intermediate Colleges working in combination with the upper classes of selected High Schools. We have also discussed the proposal to institute Intermediate Colleges with a four years' course corresponding to the last two years of High School life and the first two years of College life: and further the proposal adopted by the Senate of the Bombay University in July 1921 that the instruction given in Arts Colleges up to the Intermediate Arts and Science stages and that given in High Schools in the last year, be given in Intermediate Colleges or in selected High Schools. We are opposed to all these schemes and to the creation of Intermediate Colleges generally. The majority of our witnesses are equally opposed and some of them very emphatic in their opposition. The proposal of the Bombay Senate appears to create an Intermediate course of awkward duration, too long for those not going to the University and not easily fitting in with the age at which parents desire their children to conclude their pre-university education. On the other hand an Intermediate course corresponding to the two last years of School life and the first of College life would not fit in with the new requirement of the professional colleges: that the Intermediate qualification be the standard for admission to them. But the objections to all these proposals for Intermediate colleges which in our opinion and the opinion of many witnesses are decisive, are that the conditions of Bombay do not call for such a measure, that the cost would be prohibitive and that their success is at the best doubtful. Without in any way minimising the defects of High Schools in this Presidency—we have stated them very emphatically above in the third paragraph of this Chapter—we claim that their condition is by no means so desperate as the Calcutta Commission represents to be the case in Bengal. The Vice-Chancellor of Bombay in his Convocation Address of August 1920 showed that the numbers in Bengal were three times that in Bombay, the expenditure per High School pupil in Bengal only half that in Bombay, the conditions of life in the two provinces widely dissimilar. The difficulties of educational administration, though sufficient, are not here rendered insuperable by enormous numbers, whether of schools or pupils. Moreover we are not convinced that a Board of Intermediate Education with limited powers (not including control of the actual administration) such as the Bombay Senate's Committee proposed, is going to effect any improvement. Thirdly, the cost of such a scheme seems to us prohibitive. It is estimated that at least 40 Intermediate institutions will be necessary for the Presidency and the Sadler Commission reckoned the recurring cost of each at Rs. 50,000 a year: at the most moderate estimate the net recurring cost, deducting fees, would be, we reckon, 12¾ lakhs. The whole amount spent at present on standards VI and VII of High Schools and the lower classes of colleges cannot be deducted from this, for since the whole purpose of the change is to improve the schools in all respects, expenditure on the lower classes will certainly be increased. There will also be heavy non-recurring expenditure for buildings and apparatus. A further difficulty will arise from the staffing of these institutions. The Sadler Commission admitted that unless strongly staffed they would be

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worse than useless. We think that it will be difficult to obtain and keep satisfactory staffs for such institutions. We understand that this difficulty has already become manifest where the experiment is being tried. Strong objection too has been taken to the curtailment of the student's college life. These Intermediate institutions, it is felt, can be little more than schools, and, if they are not so from the outset, will speedily become so. Their students will be confined intellectually, morally and socially in narrower and less stimulating limits. Lastly, we think that in Bombay the objects sought can be gained by other less costly and revolutionary means. The schools can be improved by securing for them better trained and qualified staff. Once this is done it should not be difficult for the University to insist on a higher standard of admission without excluding those who have a real claim to be admitted, a standard " such as a scholar of fair ability and proper diligence may at the end of his school course come to with a quiet mind and without a painful preparatory effort tending to relaxation and torpor as soon as the effort is over. " (Mathew Arnold.) And if such a standard is set and maintained, the University will not find itself flooded with immature students.

111. Collegiate High Schools.

We have also considered another suggestion. In certain Canadian Universities (*e.g.*, Queen's, Ontario and others) the passage from school to University is effected by two alternative paths : a Junior Matriculation conducted by the University or Department following on completion of a three-year High School course and followed by a four-year University course : secondly a Senior Matriculation conducted by the University taken one year after the Junior by students who have, in a school, gone through a course equivalent to the first year course of the University : those who have passed this are admitted to the second year course of the University. In some provinces (*e.g.*, Nova Scotia and Saskatchewan) the school must be one recognised by the University : in other cases (*e.g.*, Manitoba) such candidates may come from any school, being simply rated as extra mural students doing first year work in the University itself. It was suggested that this scheme might be applied to Bombay and might enable a transition to a higher university entrance qualification and an improved standard of secondary education to be effected gradually and with less expense than the Intermediate College scheme. Thus the University of Bombay might begin by reorganising, after a close inspection, and on strict conditions as to size of classes and quality of staff, certain recognised High Schools, to be called Collegiate High Schools : might revive the former University Previous Examination in the form of a Senior Matriculation (with optio s for students not going to the University) : and allow the Collegiate High Schools to sent up students for this Senior Matric, the passing of which would admit to the *second* year of the University course. Other recognised High Schools would continue to send up their students for the University Junior Matriculation (also with options for those not going to the University) and those who passed would be admissible to the *first* year of the University course. When in due course a sufficient number of approved, well equipped

Collegiate High Schools had come into being, the Junior Matriculation might cease to be an Examination qualifying for entrance to the University. If the University from the profits of the Senior and Junior Matriculation examinations were able to pay grants to approved Collegiate High Schools, that would induce High Schools to seek to qualify to become Collegiate High Schools and give the University a much greater control over the schools. This suggestion seemed to us attractive but we finally felt compelled to reject it. It is open to the same objections as Intermediate Colleges that its success depends on the supply of competent teachers (which is at present uncertain) and on sufficient and frequent inspection of the Collegiate High Schools by the University (which would be expensive): and that it curtails the period of a student's enjoyment of a university and college environment and atmosphere. Further it will introduce a distinction between High Schools which, we fear, will provoke rivalry and jealousy and lead to much undesirable competition.

112. Our Proposals.

In Chapter XIV-A, we make proposals which, we hope, will assist the High Schools to improve the standard and method of teaching by creating a larger supply of trained teachers. We do not propose to alter the existing relationship between the University and High Schools and would have the University endeavour to secure a higher level of education in the High School by a stricter use of the powers it already has under the Act, and by the re-arrangement of the courses which we have proposed. The University must apply a higher standard in granting affiliation: and refuse to continue affiliation to all schools which do not respond to stimulus and warning: exercise a much closer supervision over recognised High Schools, especially those situate outside British India or in remote places: demand a higher standard of efficiency in the candidates who come up for examination: subject the candidate to a well conducted examination in all subjects of the curriculum; and decentralise that examination if its numbers grow unwieldy. The machinery for conducting the relations between the University and the High Schools requires reorganisation and the cost of the organisation and supervision must necessarily be higher. We think that Matriculation should be under the direction of a special University authority which should be related to the Syndicate much as the Academic Council we propose in Chapter XVI. And since Government has abandoned the conduct of a School Leaving Examination for students not going to the university, and since it is undesirable that the Matriculation syllabus and examination should entirely dominate secondary education, we think that this special authority should conduct an examination that will be first and foremost a test of a student's proficiency on leaving school: the nature of the test varying according as the student seeks admission to the University or a vocation. We think that the Board approved for this purpose by the Senate in February 1925 and the constitution and powers assigned to it are suitably devised to serve the purpose in view and may be accepted.

113. The Scope of Matriculation Examination.

The character of the examination to be conducted by this Board for Matriculation is an important matter involving very debateable considerations. In paragraph 2 above we have stated our opinion that the Examination must be a test of proficiency in the elements of a sound general education: that these must include Language, Mathematics, History, Geography, Science: and that in all subjects, some knowledge of which is regarded as essential for Matriculation, there should be an examination test conducted by the University. The main point in debate is, how many and what languages are to be regarded as essential. On this we have not been able to arrive at unanimity. A majority of us were of opinion that a *study* of three languages should be compulsory on all, *viz.*, English, a vernacular and either a classical language (*e.g.*, Sanskrit, Persian, Arabic, Hebrew, Greek, Latin) or a modern European one (*e.g.*, French, German, Portuguese). A minority were of opinion that it is too much to expect a study of three languages simultaneously and that English and only one of the three groups, Classical, modern (French, German, Portuguese) and vernacular should be compulsory both the two being tested by examination. The vernacularists claim that a knowledge of the mother tongue is the most essential part of a sound general knowledge and particularly necessary if the vernacular is to be the medium of instruction. The classicists claim that the University of Bombay has always emphasised the value of Sanskritic studies on the sound principle that the classical languages and literatures have formed the basis and vital element of European and Indian civiliaations, are necessary for appreciation of the culture that has grown up round them and are of the greatest value for the study of current vernaculars. Each recognises that English is also an essential study, and admits the utility of a knowledge of a modern European language. A third line of argument urges that in Europe Greek and Latin are no longer regarded as essential for all, however valuable in themselves, and that the important matter is to retain a sufficient study of language and literature for its humanizing effects, rather than to insist on any particular languages, and to give the student where possible freedom to choose from several alternatives. The new regulations approved in February 1925 by the Senate for the School Leaving Examination make English and *any* other language in the Board's list, alone compulsory, but this matter was much debated. The question we suggest must be left for the University to decide for itself.

114. The Standard of Matriculation.

This is not a matter merely of marks or of the percentage of marks to be required by examiners. As regards marks we are content to accept the percentages and regulations of the new School Leaving Examination as implying an attempt to demand a higher standard of *accomplishment* than that so far prevailing. But much more than this is necessary if the standard is really to be raised. Examiners' standards are apt to be dragged down by the candidates themselves. Only when the pupils are

capable of a really high standard will it be achieved, and that will only come when the schools keep the number in a class below 40 (30 is the ideal to aim at), and provide competent teaching. Apart from marks and size of classes and capacity of teachers, there is the further question of the range and depth of study to be expected. That is a matter for educational experts. The evidence placed before us leads us to think that the High School courses are in some subjects not on a sufficiently high level and require to be raised. Ultimately the level of Matriculation must become such as to make it a suitable point of departure for not only Arts and Science courses but also all professional and technological courses of university grade (except Law and Teaching which are post-graduate studies). It is not possible in present conditions to do that suddenly and now, but we think that the level might and should be raised to that of the present First Year course. When this is done, the point of departure for studies other than Arts should be as follows:—

For	Science	after passing	Matriculation.
,,	Commerce	,,	,,
,,	Agriculture	,,	,,
,,	Engineering	,,	First Year.
,,	Technology	,,	,,
,,	Medicine	,,	,,
,,	Law	,,	B. A. or B.Sc.
,,	Teaching	,,	,,

CHAPTER XI.

THE VERNACULAR AS MEDIUM OF INSTRUCTION AND EXAMINATION.

115. The view of the Calcutta Commission.

This is a question which has been dealt with very fully by the Calcutta Commission (Chapters 18 and 41). Their view for Bengal was that " the premature use of a foreign and half understood medium in teaching the ordinary subjects of the school curriculum tends to produce intellectual muddle which is concealed more or less at the Matriculation Examination test by remarkable feats of memorisation ; but made plain when the new stage of the University is reached " that the Vernacular should be the medium of instruction throughout the secondary schools for all subjects other than English and Mathematics : for English, the English medium and the Direct Method should be used as soon as practicable : at the Matriculation Examination, candidates except in English and Mathematics should have the option of using English or Vernacular : at Intermediate Colleges and the University English should be the medium of instruction and examination for all subjects except such languages as Sanskrit and Pali and the Vernacular itself. With these views we are in general agreement. But as the conditions of the Bombay Presidency are in this respect very different from those of Bengal, especially in regard to linguistic homogeneity, we think it necessary to add a little more.

116. The policy of the Government of India.

The policy of the Government of India from 1854 onwards has been consistently, not to make English replace the vernacular, but to create a bilingual system for those Indians for whom English was regarded as necessary and to encourage the vernaculars so as to make them fit for every use. The problem of the vernacular in Indian Education has not been what policy to adopt but by what methods to carry out a defined policy and the main cruxes have been (1) at what stage English should become the medium ; (2) in what subjects English should be the medium ; (3) what are the best methods of training Indian children, (*a*) in the vernacular, (*b*) in English.

117. Opinions of witnesses.

In the opinion of many people, European and Indian, English has hitherto become the medium at too early a stage, with the result of great labour in learning and very imperfect acquisition of knowledge. In the opinion of others, the deficient results of our teaching are due to our not introducing a bilingual system from the earliest, even the infant stage : only so, they say, " can the foreig ness of English be got rid of ". The difficulty of this latter view becomes obvi us if we remember that in India the learning of English can only be accomplished in formal lessons at schools. English is a foreign tongue to all but a small minority and except in certain favourable conditions English cannot be picked

up unconsciously by hearing others speak. Yet even if English cannot begin in infancy, it should, it is urged, begin quite early and analogy is sought from countries like South Africa. There an English-Dutch bilingual system was established about 1911 whereby instruction up to and including standard IV is in and through the home-langauge but parents may demand instruction in an additional non-home language as a subject and also that the non-home language shall be gradually introduced and thereafter regularly used as a second medium: above standard IV provision is made for instruction in both languages, and through both as media. These two opposed views both prevail in this Presidency and the most varying opinions exist as to the proper stage at which to introduce the teaching of English and the use of English as medium. Some demand that those who are going to the University must be taught through English from A. V. Standard IV: others say A. V. Standard VI: others again would keep the vernacular as medium throughout school-life; there are others again who would have the vernacular the medium up to the Intermediate stage at all colleges not in Bombay: and one or two would have purely vernacular universities outside Bombay (*e.g.*, the Bharat Itihasa Samsdhodak Mandal, Poona, No. 112). So too opinions vary greatly as to what subjects require English to be the medium. Mathematics, Science and generally subjects using a definitely technical language, Geography, modern history, foreign (European) history and English have all been mentioned as requiring instruction through English. On the other hand, Indian history, Geography, Mathematics, Oriental languages and the vernaculars have been said to be subjects which should certainly be taught through the vernaculars.

118. The special problem of Bombay.

This Presidency includes peoples speaking six languages (to say nothing of dialects), Marathi, Gujarati, Kanarese, Sindhi, Urdu, Portuguese. All of these languages are in use in Bombay Island (Sindhi and Portuguese to but a small extent), but outside the island the Presidency falls into four main linguistic areas. If there were five distinct universities in the Presidency, the problem would be simplified, for each of the four universities might make the vernacular of its area the medium of its instruction, if it were held desirable from an educational and other points of view. But even so it will be necessary to face any difficulties which may possibly arise owing to the fact that neither Gujarat nor Maharashtra are inhabited exclusively by people speaking the same vernacular. Many colleges, as for instance, Sangli and Baroda, draw their students from more than one community. Moreover, viewed merely from a broad educational point of view the desirability of a university adopting the vernacular as medium is not so certain. But when there is only one University for the whole Presidency the difficulty of teaching through a vernacular is increased infinitely by the addition of the administrative problems and increased expense of arranging the syllabuses and examinations in many different languages and of providing the staff able to give tuition through them. Nor is it easy to see how any

really intimate intellectual or cultural bond could be established and maintained between on the one hand the University of Bombay situate in a cosmopolitan city where the English language and western ideas are necessary for commercial, industrial, political and intellectual purposes and on the other hand colleges and schools in the mofussil whose work will be mainly if not entirely shaped and coloured by the local language and culture.

119. The value of English as the medium of University teaching.

So long as there is one University only for Bombay we think the medium of instruction and examination for the University in all its classes must be English—except for instruction and examination in the vernacular languages. In the case also of the Sanskrit, Persian and Arabic languages, instruction may be given in the vernaculars. Even if more than one University come into being*, we think that any university that relies principally on the vernacular for the communication of western knowledge will in the present circumstances seriously impair its capacity to convey a real mastery of such knowledge. The grounds for this opinion are many, but we content ourselves with a brief statement of a few only. In the first place a common medium binds the institutions of the University together. In the second, English is the only conceivable medium in a cosmopolitan city like Bombay, and we think it would be better to divide the University than to have a single university of a polyglot character. Thirdly, in our opinion English is the only language that is available as a practicable vehicle for conveying throughout the Presidency modern western knowledge, particularly science, of advanced character. That knowledge must be almost entirely conveyed to India *in print*, books, periodical literature, the newspaper. It must come in the English language principally. How can it be translated month by month, day by day, into the vernacular? If Indian lecturers explain some portion or aspect of it in vernacular lectures that is all to the good, but it is inconceivable that the whole bulk is to be transferred through the vernacular. In any such translation much must be lost. What would happen probably would be that original books or articles would be boiled down into vernacular abridgments and the student would content himself with these instead of the original. We do not see, in short, how India and Indian students are going to keep in touch, much less abreast with western culture if University teaching is to be done through the vernacular. Fourthly, India needs a *lingua franca* for scholars, a common medium for communicating ideas and discoveries, without which she cannot keep herself in touch with progressive thought even within her own boundaries. No language but English can serve this purpose.† We recognise that the adoption of the vernacular as the medium need not mean the entire abolition of English. But we think that it will inevitably weaken the habit of consulting the original sources and the ability to assimilate

* Mr. Jayakar and Mr. Shah do not accept this and have stated their view in a note at the end of Chapter VI.

† Hindi has been suggested for this purpose by some witnesses but we do not consider it practicable for this Presidency.

what flows from them. Lastly, we think that India needs to continue the use of English as a medium because of the value such use has as a bond of political as well as intellectual unity.

120. The function of English in secondary education.

While we insist on the need for the retention of English as the medium at the University, we agree with the Calcutta Commission that the medium in secondary schools should be the vernacular. For in the first place, only a limited number of the pupils of schools pass on to a university while in the secondary schools are, or at any rate should be, gathered all the Indian youth whom circumstances and capacity permit to carry education beyond the bare rudiments. In the second place, it is still a necessary and very important, though no longer the sole, aim of a *university* to introduce Indian youth to European knowledge. But secondary education aims, not merely or primarily at preparing youth for a university or at a knowledge of western culture; but at fitting them in character and attainment for their life in India and for the best possible employment and mastery of Indian resources, including both Indian vernaculars and the English language as instruments to the development of India's resources. The duty of the Indian secondary school as regards language is, first, to make its pupils bilingual, to give them a full command of the spoken, written and printed word in the two languages which have the greatest general educational value for them; and those will be for the majority of children who attend the secondary school, a vernacular (whether the home language or other) and English. Secondly, to add a knowledge of any third language that their vocation or further training at the university may make desirable. The vernacular, therefore, seems to us to have a much more insistent claim to be the principal medium in secondary schools than in a university. We do not say it should be *the only* medium, though a majority of us think that it is desirable that all teaching in High schools (except in the subject English) should be in the vernacular. But the teacher must be left with some discretion to use such medium as is most serviceable to his purpose, the subject, the pupils. The extent to which and the stage at which English is introduced as a medium may vary with every subject. Sir H. Sharp's scheme, quoted by the Calcutta Commission (Chapter XVII, section 91) is an interesting example. We further think that the pupil must be given an option to answer his examination in either English or his vernacular though the question papers are best set in English, lest any difference of meaning be imparted to the various vernacular versions of the questions. In subjects requiring definitely technical language the simplest way seems to keep the English technical terms.

121. Safeguards for English.

Some people have expressed a fear that the use of the vernacular as medium will seriously impair the command of English of candidates seeking admission to the University or to a vocation. On the other hand, some of the advocates of the vernaculars assure us that their

larger use will not only *not* impair the students' standard of English but may actually improve it, if special teachers are appointed to teach English. We are unable to share the latter view. In Japan, where the vernacular is throughout used, " the pupils ", according to the testimony of the late Mr. W. H. Sharp, " are said to cover the ground in general subjects more quickly and thoroughly than when attempts were made to teach them in English ; but on the other hand, the command of English itself has fallen off considerably, in spite of the number of hours devoted to it ". As the medium of instruction and examinations in the Bombay University will continue to be English, this is a contigency which cannot be contemplated without concern, and against which some precautions must be taken. Improvement in the method of teaching language is the surest safeguard. With better methods, much more talking in English by the boys and must less by the teacher, and the training of teachers in modern language methods, it should be possible to attain as great success in creating bilingualism in this country as in others—greater if the facility with which Indians acquire languages is considered. Apart from improved methods of teaching other safeguards for English have been suggested and may be tried. Schools must be equipped with a good English library and reading room and the boys made to read widely. This can be done by a keen master. To secure reading of English literature text-books must be prescribed but these should be used for general rather than detailed study. English must of course remain a compulsory subject of school study. The examination test must be made a thoroughly practical one, the more so since oral examination is not possible with such large numbers. But Headmasters and teachers should apply oral tests frequently.

122. Encouragement of scientific study of the Vernaculars.

A majority of our Committee suggest (see Chapter X, paragraph 113) that the vernaculars be among the languages studied compulsorily for Matriculation. In Chapter XII, paragraph 128, we propose that vernaculars also be options throughout the arts courses at the university. If this is accepted students will have opportunity for continuous study of the vernaculars throughout. It is a question whether all the chief vernaculars contain sufficient suitable material for their study as Honours subjects for the B.A. and M.A. degrees. On witness, Mr. N. B. Divatia (No. 22) says that he thinks it premature to introduce an Honours course in Gujarati, being doubtful as to the quality of existing literature, old and new. We are told that similar doubt exists as to Sindhi and other vernaculars. This, however, is a matter which the experts of the University must decide. Professor A. B. Dhruva (No. 6) states that the best method of promoting the scientific study of the vernaculars is " to recognise that they are to be studied as sister-languages belonging to a single family with Sanskrit as the parent language, *i.e.*, in the light of comparative philology and comparative literature of Indian languages ". This is also urged by Mr. N. B. Divatia and Professor Zimmermann. Other suggestions for encouraging the scientific study of the vernaculars are to create University lectureships or Professorships in them, a proposal

we have adopted (see Chapter VIII, paragraph 88). To include the vernaculars among the languages and literatures for which the post-graduate degree of D. Lit. may be awarded (see above Chapter VIII, paragraph 91) may encourage advanced research into them. Lastly, if additional universities are created at the centres of linguistic areas, such universities will naturally devote special attention to the study and development of the language and literature of the area.

123. Encouragement of good vernacular literature.

This is a problem distinct from the question how to encourage a scientific study of vernaculars. Good literature cannot be begotten by merely artificial means ; it must be the natural product of a demand for graphic and artistic expression of a people's life and thought. It presupposes a certain culture both in the writer and those who read him. It must be the flower of an intellectual and aesthetic growth. Government grants, university chairs and regulations will not create a literature, but Government and University may help to create a demand and taste for good literature by the moulding force they can give to education. One means to this end is to encourage the study of other great literatures, and that is why universities lay so much stress on the study of the classical languages and literatures. Much of the progress that Marathi and Guzerati literatures have made in the last century, especially their poetry and fiction, is due to the influence and study of Sanskrit and English literature. Another means is to encourage vernacular journalism. The history of English literature shows a continuous amelioration and humanizing of English prose under the influence of the press. One need of Indian vernaculars is of an easy, light style whose concealed art the cultured may savour but whose simple lucidity the masses can understand. Journalism will teach this and supply Guzerat and Maharashtra with essayists making as wide an appeal as a Belloc or a Birrel, an E. V. Lucas or " Alpha of the Plough ". The University may regulate its courses to assist this natural growth, making careful selection of attractive text books for study and promoting wide reading, providing for the publication of accurate texts and cheap well printed editions. We fancy that the unattractive appearance of vernacular books accounts partly for their small sales. Societies like the Guzerati Vernacular Society may also play a useful part. Government or University may establish Boards for translation of European books into the vernacular. But translation will not create a literature and may cramp its native genius and style.

CHAPTER XII.

THE UNIVERSITY UNDERGRADUATE COURSES.

124. A scheme of undergraduate courses.

Detailed discussion of the University courses will not be expected of a Committee constituted as ours. But we have received numerous suggestions from witnesses from which general considerations arise and we desire to indicate our ideas on some of these. In appendix No. 12, we print a suggested scheme of undergraduate courses to indicate how our ideas might be carried out.

125. University examinations and courses.

We see no reason to alter the duration of the course. Considering that there is now no age qualification for entrance, we think reduction to three years is undesirable. It is sufficient if the University test the student twice during this course. The Intermediate and degree examinations should remain. Complaint has been made that the College First Year Certificate examination is conducted with wide variations of standard and with too great leniency and it has been suggested that the former University Previous examination be revived. On the First Year students who are not transferring to a professional college it seems quite unnecessary to impose a university examination, and if Principals are too lenient in promoting, their own colleges are the sufferers. We think Principals must be allowed so much responsibility. But we agree that where this First Year Examination is the point of departure for the Medical, Engineering and Technology examinations, as we have proposed it should be (*vide* Chapter X, paragraph 114), it is desirable that the qualifying test should be conducted by the University. We, therefore, propose that students entering the Medical and Engineering colleges be required to have passed the University "Previous" examination. It will be remembered that in Chapter X, paragraph 114, we recommended that the standard of the Matriculation examination should be that of the present First Year Course and consequently the standard of this Previous examination will be that of the present Intermediate Science. It follows from this that in our scheme students will have to decide between an Arts, Commerce, Agriculture and Science course after matriculating. But it is intended that in certain subjects, such as English, French, German, Latin and Logic, Arts and Science students of the First Year shall study much the same syllabus. At the end of their second year all Arts and Science students will be tested by a University examination. Thereafter each student in our scheme would have to choose between a pass and an honours degree course which in each case would be a course of two years. The pass and honours courses we design to be distinct, though we conceive that the *subsidiary* courses for honours would be much the same as the pass courses in the same subject.

126. The distinction between Pass and Honours.

The trend of the evidence before us clearly favours the retention of a distinction between pass and honours B.A. courses, and the more weighty evidence appears to us to favour the widening of that distinction. The ground or principle of such a distinction is an interesting point. Hitherto at this University the distinction has been one of intellectual ability and depth of study. Except in Mathematics, where the pass and honours syllabuses are distinct, the pass course has been identical with the honours so far as it goes, but the honours student has carried his study of one branch deeper than the pass student. The result has been that nearly every student attempts an honours course until circumstance is too strong for him, and very many do not abandon the attempt till faced with the examination question papers. This is a system which involves much waste of effort for student and tutor and renders real honours work very difficult by reason of the drag imposed by the incapacity of many who attempt honours. On the other hand it is difficult to distinguish at the outset who are and are not capable of honours and a rigid reliance on the results of the Second Year University examination for this purpose might cause hardship. It appears to us that a sounder principle of distinction must be sought and will be found in differentiating the purposes which should underlie a choice between a pass and an honours degree. There need not be and ought not be a difference of status between them. A pass degree should imply not inferiority but a difference of aim, and for that reason it might be better to get rid of the names of 'pass' and 'honours' and substitute names that do not suggest that one is for a lower being than the other. There are in this country some undergraduate students who are seeking a broad-based culture to fit them for general purposes of life; who do not propose to themselves to become specialists in any branch of knowledge but desire to survey varied fields of human activity and to experience and gather as many and diverse materials as possible for a life whose direction may as yet be undetermined or whose goal must still be left to circumstance to define. There are others again who have chosen a profession or are by disposition interested in some line of thought that calls for deep and detailed study of a particular branch of knowledge; men who are by nature philosophers, mathematicians, historians, economists. Even within a single profession there are those who are disposed to range through all its activities and others whose interest lies in a special sphereless; *e.g.*, teachers who teach for love of teaching and teachers who are atonce 'tutors' and students of mathematics or literature or history. It is for the former class that the courses misnamed 'pass' should be designed: for the latter the courses mistakenly dignified with the title of 'honours'. This is the principle that differentiates the 'pass' and 'honours' courses of our scheme. Opinion may differ how many subjects such a 'pass' course should embrace. Ours is designed to include the practical use of the English language, English literature, general knowledge, and any three other branches of knowledge, of which one must be a science subject. Our 'honours' course provides for a specialised study of one subject chosen at will and a general

knowledge of some branch of study subordinate but necessary or directly helpful or closely related to it.

127. The distinction between Arts and Science courses.

We have arranged our scheme so that an elementary study of science is a necessary part of the school and University Arts course, when they are designed to promote general culture. A knowledge of the method of science, of the elemental facts of general science and an elementary acquaintance with some one science are now regarded as a necessary part of a sound education. Science is, therefore, made by us a necessary subject throughout to the B.A. 'pass' degree. * On the other hand we regard the present absolute disregard of language, literature and humanistic considerations in the existing science courses as at variance with sound educational theory. Every student must be master of his medium of expression and have sufficient knowledge of the languages in which his text books and the best authorites are written. Practical tests in English are made necessary for science students at the Intermediate stage, and French or German or Latin are included among the subjects that may be taken.

128. Continuity of the University courses.

The principle of continuity is, we think, insufficiently realised in the existing courses. If any subject in language is offered for study at the earlier stages it should be available for study at the later stages also. That does not mean that a student must study the same subjects throughout his career, only that he is given reasonable opportunity of concentrating his attention on what he is interested in and its related subjects. We therefore provide that the study of vernaculars, of science, of geography is possible at each stage, and hope that in the case of geography this may promote interest in, and attract students to, that very valuable but much neglected study.

129. Study of English.

This subject has been amply discussed in the Calcutta Commission's report (Chapters 18 and 41) and we think it only necessary to record our views. The two main questions are whether study of English should be compulsory, and what should be the character and scope of the compulsory English studies. We do not think there is any real question of the necessity of English being studied at every stage and in every branch of University studies that is directed to western culture. But there is question whether what is insisted on is to be a practical knowledge of English speech, or a knowledge of both English speech and English literature. We are not prepared to admit that the University can, without weakening its educative power and departing from the accepted educational policy, exclude English from the compulsory subjects, nor

* Mr. Mirza Ali Mohammed Khan is opposed to making science a compulsory subject for the B.A. 'Pass' degree.

that in the past too much stress was laid on the study of English literature. We have, therefore, in our scheme made English language as well as English literature compulsory during the first two years of the Arts course, and at the B.A. ' pass ' course language and literature will, we believe, each enforce the appreciation of the other. But in the final ' honours ' courses, where students are concentrating on a special subject, other than English literature itself, what is required is a test of their practical command of the English language and ability to express effectively in it the ideas and general knowledge that any cultivated man is expected to acquire, as well as their knowledge of the special subject. We therefore in the honours courses confine the study of English literature to the optional subjects and make the compulsory part of the examination consist of a practical test of command of modern English and of the power to express acquaintance with the trend and topics of modern thought.* This is on the lines applied by the Civil Service Commissioners to the Indian Civil Service Examination.

130. Language grouping.

Honours students of languages, we think, should not be allowed unlimited choice in combining languages. The subsidiary language is intended to assist in the study of the principal language and there should be some relation of kinship, or mutual influence to justify the grouping. We have said in Chapter XI, paragraph 122, that we doubt if vernacular literatures afford suitable material for honours courses and we think for the present they should be grouped as subsidiary to Sanskrit or other suitable 'classical' languages.

131. Wide choice of optional subjects.

One of the principles of our scheme is to widen the range of University courses and to provide a wide choice of subjects to suit individual needs and interests. It will be noted that we have included Education in the list of ' pass ' B.A. subjects. The ' pass' graduate will, we conceive, be a valuable member of general utility on the staff of a High School and if the ' pass ' student can include the principles and history of Education in his graduate course along with other subjects, we hope that a large number of graduates may be induced to turn their thoughts to the teaching profession. We expect the ' pass ' degree to be treated as a satisfactory qualification for undertaking the course for the degree of Bachelor of Teaching.

* Mr. Mirza Ali Mohammed Khan is opposed to this, *vide* his note to Appendix No. 12.

CHAPTER XIII.

TECHNOLOGY.

132. The demand for the teaching of Technology.

In reply to the eighteenth and nineteenth questions of the Committee (See Appendix No. 1) many witnesses recommended in a general way the creation of a Faculty of Technology without furnishing any justification in principle or, any clear idea of what is therein involved. There is evidently a widespread feeling that such a Faculty is needed to remedy certain deficiencies in the work of the University and to give it a wider scope. We have already mentioned (Chapter III, paragraphs 24, 31-33) the defects complained of in the University: that far too large a proportion of its graduates consists of students of mere literature; that its courses are too abstract and the retic; that its teachers, its students and their studies are out of touch with the facts and methods and purposes of commercial and industrial life: that it does not attempt to fit men to enter a commercial business or industry. There is good ground for these complaints, though we emphasize that the whole duty of University education is not fulfilled in developing man's capacity to handle machines and their products or to apply science and calculations to industries and employments. But such forms of education are needed and whatever view one may hold as regards a University being the best agency for supplying them, yet we think there is a great advantage in these forms being carried on alongside of humaner kinds by the same authority. The atmosphere of each tends to correct the de el pme t f the ther. As the educationist recognises that 'Arts' and Science must both contribute to produce the balance of a finely tempered culture, so scientists recognise that pure science and applied science are inter-dependent things that can best flourish alongside of and under the stimulus of each other.

133. The duty of a City University to supply the want of Technolgical education.

The need of technical and industrial education in great manufacturing cities like Bombay and Ahmedabad need not be argued. The debateable question is what are the best agencies for giving it. Usually professional education is guided and controlled by professional organizations. But industry and commerce are too manifold in their activities for technical education to be controlled by any single professional organisation or institution. That in itself is one reason for a university undertaking some share in it. A university will not be governed by merely utilitarian or trade purposes and can rise above professional jealousies. Nor need the academic temper of a university be a hindrance to the instruction it gives being duly and intimately related to the practical needs of industries. The true spirit of university education is not inconsistent with the solution of the actual difficulties of manufacturers and merchants. For the aim of a university is to

inculcate the desire for truth and to fit men for the application of sound principles to life. The difficulty of the problems of trade and industry lies largely in the restricted outlook of men preoccupied with the special conditions of the industry. The true nature of the problems and the underlying principles may stand out more clearly to the wider outlook of the academic scientist, able to relate them to the fundamental problems of pure science. " Both the history of educational organization and a right view of the methods of university work appear to us to justify the inclusion of professional and technological studies within the University. " (Royal Commission on University Education in London, Sec. 78) " A city university ought to find a place for technological studies beside those of pure science and there is nothing in the nature of technology which makes it necessarily unsuited to the methods and spirit of university work. Indeed the only hope for permanent advance in the application of science to the practical needs of mankind is to be found in the pursuit of those methods and the encouragement of that spirit; for what the masters of industry need equally with the doctor and the lawyer are the principles which underlie the sciences rather than their applications. 'The applications change; principles never change'. " (*Ibid*, Sec. 194.)

134. The demand in India for highly trained students of technology.

We think that we are the more justified in applying these words to Bombay in that there is but one technical institute in Bombay and one middle technical school in Bombay and Ahmedabad respectively. There can be no question of competition for there is at present no competitor. There is as much need in a system of technical education for varying grades of education as in any other system. None of the existing institutions claims to supply the technical education given in universities elsewhere. But the question arises, Is there a demand for this grade? If the University provides an institution equipped to give facilities for the training of Indians who can superintend, direct and manage industrial undert kings, will Indians be forthcoming and when trained will they be able to find employment? Are the industries of India sufficiently developed to absorb the technically trained men whom a university could turn out? At present such managers are imported from abroad on high salaries. Can the University assume that the men it trains will be accepted in their place? To these questions the Bombay Committee on Technical and Industrial Education in 1922 replied virtually in the affirmative. Both the majority report (page 22, Sec. 36) and the minority report (page 100, Sec. 46) recommend that the University create a new Faculty of Technology and that a College of Technology be instituted in Bombay City. They both suggest as an alternative the combination of the new college with the Royal Institute of Science and appointment of a committee to explore further these alternatives. Both reports therefore imply that the industries of Bombay are capable of absorbing a certain number of technological graduates. They differ, however, in the number they think can be absorbed. Conscious that the growth of technical education in Great Britain was due to the previous development

of industries and inferring that industries create a science of technology rather than that the science begets industries, the majority limit the new college to an *ultimate provision for 200* students (page 23, Sec. 39). Relying on a comprehensive scheme of elementary and middle technical education in India the minority anticipate a large demand for higher technical education. They assume that the development of industries in America and Europe will curtail the supply of experts from abroad, while the concurrent development of Indian industries will rapidly outgrow the possibilities of recruitment from foreign sources (page 98, Sec. 43). They therefore propose a college accommodating 400 students at the commencement (page 100, Sec. 56). Two members of our committee have intimate knowledge of the conditions of industrial employment, Sir Fazulbhoy Currimbhoy and Mr. J. B. Petit, and we are advised by them that beyond doubt there is a demand for such a class of Indian technically-trained experts but that it would be well to be cautious in estimating the extent of the demand. We, therefore, recommend that a beginning should be made with a provision of 200 students with facilities for future expansion.

135. A Technological Faculty and Courses.

We agree then with the Technical and Industrial Education Committee of 1921-22 that:—

(*i*) It is desirable to open a Technological College in Bombay of which one or two departments may be located in the Royal Institute of Science as explained below.

(*ii*) When such college is instituted the University should create a Faculty of Technology, to include Engineering (Civil, Mechanical and Electrical), Agriculture and other technical and applied sciences, the existing Science Faculty being restricted to Pure Science. The Faculty of Technology should include laymen (*i.e.*, those who are not professional educationists) with special knowledge of the industries concerned.

(*iii*) The subjects to be taught in such Technological College should be Mechanical Engineering, Electrical Engineering, Textile Industries and Applied Chemistry. We think that graduates in these subjects are likely to be absorbed in industries more quickly than in others, the railways, irrigation projects and mills being likely to have an increasing number of superior appointments to offer. And in view of the heavy expenditure involved we have recommended that provision should in the beginning be made for 200 students.

(*iv*) Admission to the Technological College should be after the first year's study in an Arts College, normally on the Science side, but also, with the approval of the authorities of the Technological College, on the Arts side.

(*v*) There should be a three years' course for a Bachelor's degree in Technology: ultimately a further two years' course might be created leading to a Master's degree in Technology to be awarded on approval of a thesis. "The aim of every course of training given in a technological department should be clearly defined, and the certificate (whether a degree or a diploma) should in each case plainly signify the kind of work for which, in the judgment of the University, the holder is qualified." (Calcutta Commission Report, Chap. 48, Sec. 18.)

(*vi*) We also approve the recommendation of the Calcutta Commission (Chap. 48, Sec. 16) that there should be an advisory committee for each department including representatives of the industries concerned and scientists representing the University and recommendations of the Faculty should go to this advisory committee in the first instance.

(*vii*) The nature and amount of the practical training to be required of technological students is a debateable point. Actual works experience, says Prof. J. F. Thorpe, Professor of Organic Chemistry, Imperial College of Science and Technology, London, is strictly a necessity for true technological training. But in practice, he continues (speaking of chemical works), such works or factory experience is apt to be limited to routine work in the research laboratory, since chemical manufacturers are loth to give the run of their works to casual students not in any way bound to them. In India, any factory experience is hard to obtain. He suggests as the best substitute for this instruction, in laboratories attached to the universities, the use of appliances not of the full industrial scale (which would be unnecessary and even impossible) but of comparatively small dimensions, containing types of every kind of plant used in chemical manufacture, of about 1/60th the size of the large scale plant and involving the use of metal apparatus and the connections incidental thereto. (Chemical Services Committee Report, 1920.) The Calcutta Commission take much the same view (Chap. 48, Sec. 19) and are of opinion that the Technological College must be supplied with laboratories and workshops fully equipped not only for demonstration but also on the modified industrial scale suggested by Prof. Thorpe. Opportunities of experience of production on a large scale and under factory, commercial and industrial conditions must be provided by arrangement with railway authorities and factory owners, and such experience must be a condition of a degree. But the responsibility for the students' practical training must devolve principally on the University.

136. A Technological College.

The proposal of the Technical and Industrial Education Committee of 1921-22 to combine a Technological College with the Royal Institute

of Science appears to us sound. But we do not think that the situation of the Royal Institute of Science or the amount of land and buildings available in its compound is suitable for a combination with the Institute of a full Technological College, teaching all the four important departments proposed in paragraph 135 (*iii*) above by us and also by the Committee of 1921-22. Technological instruction in Engineering, Mechanical, or Electrical and Textile industries could best be given in the neighbourhood of the railway workshops and mills and some site near the Indian Cotton Merchants' Research Laboratory at Matunga would be more suitable for these departments. We think, therefore, that Technological training might be divided between two institutions, an Applied Chemistry and perhaps later an Applied Physics department being attached to the Royal Institute of Science and a college for technological training in Engineering and Textile Industries being opened at Matunga. We do not attempt to define the nature of the courses of study at the College but presume that for Textile Industries they would be on the lines of those at the University of Manchester. The College, we suppose, would require a site of some 10 acres costing about 5 lakhs. The cost of buildings and their equipment and of staff and maintenance have been estimated in both majority and minority reports of the Committee of 1921-22. We take a mean between the two estimates, and allowing for Applied Chemistry being attached to the Royal Institute of Science, we estimate the cost of buildings and equipment at Matunga at Rs. 45,00,000 and of maintenance and staff at Rs. 3,50,000. We think that our estimate on account of equipment may prove to exceed the actuals by 33 per cent. if free importation of the machinery is allowed and if the prices continue to fall. We are of opinion that the Technological College, the establishment of which we have recommended, should be a university institution, directly managed by the University. Any scheme for its establishment should be so framed as to secure this. As we are proposing in the next paragraph that the department of applied chemistry should be conducted at the Royal Institute of Science, an arrangement will have to be arrived at to enable the University Technological College to co-operate with the Royal Institute of Science for instruction in that subject. If this arrangement is thought to be liable to create difficulties and complications, a way may be found by allowing the Royal Institute of Science to add a department of applied chemistry, the control of which will lie with the Royal Institute of Science and the University Technological College may only provide for the departments actually taught by, and in, it. The Committee, however, do not anticipate difficulty in the way of the Royal Institute of Science and the University Technological College co-operating with and supplementing each other's instruction in the technological subjects.

137. A technological department at the Royal Institute of Science.

For the technological department at the Royal Institute of Science room would be found on the two upper-floors of the east wing facing the Museum. There was a proposal to utilise these floors for a hostel

but we believe this has been abandoned, and in any case we think that would be a misuse of the space. For the hostel we have proposed a site on the Cotton Green (*vide* chapter IV, paragraph 49 (ix)]. In addition to the east wing new buildings may be erected on the chord of the arc of the Institute compound. The department should, to begin with, be one of Applied Chemistry. It would, we suggest, require special laboratories equipped not on a full industrial but a comparatively smaller scale, containing types of the principal kinds of plant used in chemical manufacture, as recommended by Prof. Thorpe (see above paragraph 135, sub-section VII). We suggest (subject of course to the approval of experts) that this department of Applied Chemistry might undertake some of the following branches :—

(*i*) Chemical Engineering (*i.e.*, the scientific design and operation of the apparatus and processes of chemical industry);

(*ii*) General Chemical Technology, *i.e.*, industrial, organic and inorganic and physical chemistry;

(*iii*) Chemistry of Textiles;

(*iv*) Colouring matters; and

(*v*) Possibly such others as fuel, food-stuffs, electro-chemistry, indigenous drugs and photography.

The instruction in the principles of engineering and mechanical drawing which Prof. Thorpe says (Chemical Services Committee Report) is a necessary part of training in Applied Chemistry, we suggest, could be supplied at the Technological College at Matunga by a short intensive course.

138. The value of such a Technological Department.

The value to the Royal Institute of Science and to Chemistry in general of such an expansion of the Institute's Chemical department is evidenced by the following quotation from Prof. Thorpe's introduction to the Chemical Services Committee's Report (p. VIII). "The difference between a pure and applied Chemist is relative only and a chemist whether he ultimately intends to devote his life to academic or to industrial pursuits, must, in the first instance, receive a thorough training in his subject by passing through a recognised course such as that given in an Honour's School at a British University. Even then the dividing line between pure and applied Chemistry has not been reached, but one or two years subsequent training in the methods of research, coupled with instruction in the principles of engineering and machine drawing, where such training has not already formed a part of the Honours' course, is necessary both for the industrial and academic chemist. After such training, the chemist should be in a position to turn his hand to anything chemical. If he decided to enter industry, he might do so at once because his mind would be in a condition rapidly to assimilate the technical details of the chemical processes underlying the work of the factory into which he entered.....If on the other

hand, instead of following industrial pursuits, the chemist decided to enter academic life, he would be, after such training, in a position to teach and instruct others in the methods of chemical research." Our conception of the work of the Royal Institute of Science on its chemical side is that the double provision for pure and Applied Chemistry will make each react on the other and will imbue both classes of students with initiative and enthusiasm for research. And the inclusion of special laboratories for chemical research and recognition that the superior staff must be in close touch with mills and factories and free to engage, under specified conditions, in consulting practice, would supply the openings for such research.

139. The cost.

We estimate roughly that one lakh recurring would be required for maintenance and staff and 5 lakhs for the buildings in the chord of the arc and fittings.

140. Committee of Experts.

We assume that in accordance with the recommendation of the Technical and Industrial Committee of 1921-22, Government and the University will appoint a Joint Special Committee of experts to work out details in consultation with the Advisory Committee of the Royal Institute of Science.

141. Victoria Jubilee Technical Institute.

We make no proposals to bring within this scheme the Victoria Jubilee Technical Institute. The Principal of that Institute was consulted by us and we understand from him that neither he nor his Board of Management think affiliation of the V. J. Technical Institute by the University desirable. They prefer that their Institute should follow independently the lines of training they have laid down and should continue to give its own diplomas. Apparently they are satisfied with their own system and with its results. In these circumstances it is best to wait till the University's Faculty has proved its value and the Institute finds it worth while to collaborate with the University.

CHAPTER XIV.

PROFESSIONAL STUDIES.

A. Teaching.

142. The University's neglect of the Art and Science of Teaching.

The deficiencies of secondary education are to a large extent attributable to bad methods of teaching and low standards of efficiency and the most important means to raise the level of University education is to secure better teaching in the schools. Until quite recently the University made no provision for the training of teachers beyond creating a quantity of hall-marked students sufficient, if they had been willing, to serve as recruits to the profession. For the law, for commerce, for medicine, engineering, agriculture it provided special training. It was only after it had for years trained men for those other professions that the consciousness grew that it was equally important to provide special training for teachers. The University has during the last five years established a course and degree of Teaching, but till 1924 there was only one affiliated Training College. No appreciable progress has been made towards securing adequately trained or experienced teachers on the staff of its recognised schools. If secondary education is to be improved, more and more highly trained teachers must be secured. The University must lay in the High Schools a solid foundation for University education. Secondary education, it is true, cannot be studied apart from or practised without regard to primary education, but the latter is more immediately the concern of Government. What the University is concerned to secure is a more rapid and a more comprehensive development of ability and acquisition of knowledge when the children pass into the secondary stage. For this purpose it must concern with Government a suitable syllabus and frame for itself a suitable qualification for entrance to the University. It must simultaneously give the utmost encouragement to the improvement and expansion of existing agencies for training teachers and the opening of new.

143. Development of existing Agencies for Training Teachers.

The Government Secondary Training College, Bombay, is the only recognised institution of its kind, the Malvan High School being affiliated for the purpose of training its own staff for the B. T. degree. The Government Secondary Training College was last year opened to teachers from aided schools and can now contribute to the improvement of the staffs of just those schools which most need improvement. For that reason we make some detailed recommendations which we think would greatly increase its utility :—

(*i*) The College should remain in Bombay because that is the most stimulating centre of educational and intellectual activity. Elphinstone High School should remain its practising school, but perhaps it would be able to offer a more complete scheme of training if it had also a Primary school attached to it as additional practising school.

(*ii*) The College should be enlarged, we think, to accommodate 100 students annually. This need involve no additional building, but an increase of staff, supplementary equipment, particularly up-to-date apparatus for teaching Psychology, and an adequate annual grant for the library. The additional staff should include masters or mistresses of Method and a Professor of Experimental and Statistical Method.

(*iii*) As at present, the examiners for the B. T. degree should include at least one member of the staff of the College, and the examination in the theoretical part should be based on a syllabus of instruction submitted by the authorities of the College and approved by the University. This would give the College a very desirable freedom of teaching and experiment.

(*iv*) The University should itself directly encourage teachers of recognised aided schools to seek training by offering scholarships or stipends of Rs. 50 per mensem to assist them. These in combination with Government's stipends would enable a teacher to sustain the loss of salary while under training.

(*v*) The Secon ary Teachers' Certificate may now be replaced by a University Diploma awarded on the conditions named below (paragraph 146) and the Secondary Training College should provide instruction in this course through evening classes.

(*vi*) The education section of the University Library should be developed into the central educational library of Bombay, especially by the purchase of the leading educational journals of the world and the educational reports of Great Britain, Japan, United States and other countries.

(*vii*) The University should encourage suitably staffed and equipped recognised High Schools to open training departments for teachers under University supervision. Training Colleges must adapt their methods of training to suit the new requirement of the teachers resulting from the larger use of the vernaculars in High Schools.

(*viii*) Government may grant two stipends of Rs. 125 or 150 per mensem for the benefit of B. T. graduates conducting research qualifying for the M. T. degree. Unless such stipends are granted, few will be able to forego their salary to carry out such experimental research.

144. A University Department of Education.

Our scheme of post-graduate study includes the opening of a University Department of Education with a Professor and Assistant. Our idea is that the University should co-operate with Government in promoting an interest in the art and principles of education, and so contribute to propagate in the graduate world the idea that teaching is a profession worthy to be made a life's work. Our post-graduate scheme is based

on the idea that the University will be responsible for post-graduate teaching. But this is a department and a study that is to be created from the beginning, and we feel that the University must seek the aid of the few agencies there are for the purpose. We therefore recommend that the Secondary Training College, Bombay, be recognised as an institution for supplementing the work of the University Education Department in directions for which there are men and materials available in that institution. Such co-operation will be valuable especially in experiment and research, and should be arranged so as to avoid unnecessary duplication of work. The University Department should consist of a Professor of Education, Head of the Department, an Assistant Professor, and lecturers who would be teachers on the staffs of Secondary Training institutions selected and remunerated by the University. The particular subject of education which each should profess need not be specified by us: but one should be a specialist in modern experimental psychology and all should have had experience as teachers and themselves been through a course of training. The work of the University Department will be —

(*i*) To investigate problems of Indian education. This will be done by the Professor aided by his assistant and select stipendiary students who are under training for the M. T. degree:

(*ii*) To supply lectures on Education and Psychology to students working for the M. T. degree:

(*iii*) To provide a vacation course of training in the principles of education and psychology for students preparing for a University Diploma of Education. This will be work of the nature described in chapter IX on Adult Education.

145. Research into problems of Indian Education.

The conduct of research, especially into the bearing of conditions of life in India and Indian psychology on the principles of education, and preparation of students for the M. T. degree will be the principal function of the Department. To attract students to undertake research or experimental work for the M. T. degree, we think it would be desirable that the University should offer two scholarships of the value of Rs. 125 or 150 per mensem tenable for at least one year by graduates with the B. T. degree who undertake an approved piece of experimental work. These should be additional to the two that might be offered by Government. It is necessary to offer inducement to postpone earning a livelihood to those who have prepared themselves by a five or six years' course for the teaching profession. For the purpose of research the Professor and his assistant will need a 'demonstration' school. This differs from the practising school attached to a Training College. The latter is a High School used to supply opportunities for teachers under training to put in practice the principles and methods they have learnt. It necessarily follows the lines of the schools in which the teachers under training will be subsequently employed and therefore affords very limited scope for experimentation. The demonstration school is a school of free experiment designed not as a model to show the best

that can be done under normal circumstances, but as a laboratory for educational experiment. It will therefore not be a High School, but a school of not more than 100 children, the pupils limited to children of between 10 and 14 years of age. It will be conducted by expert managers and teachers, and be free from Departmental or other rigid regulations. It will of course charge fees and pay its way so far as is consistent with the fulfilment of its purpose. It will have to be maintained by the University and organised and managed by the Professor of Education with a staff of teachers chosen by himself in consultation with the Principals of the Government Secondary and other Training Colleges. Such a school should, if possible, be in the Fort near the University. It will undoubtedly involve the University in some recurring expenditure. Lastly, the University Publication Department we have recommended (Chapter VIII, paragraph 92 (*f*)) should publish at University expense the results of approved research conducted by University teachers or members of the staffs of recognised training colleges.

146. A University 'Diploma' for teachers.

There is a considerable number of persons engaged in teaching in Secondary schools who do not possess a University degree. Such a degree we lay down (*vide* below paragraph 147) should in future be regarded as essential but it will be some years before this ideal can be attained. Many of these teachers have gained valuable experience and their services are esteemed. To encourage such teachers to study the principles of their profession and by so rendering themselves more fit for their work to enable them to earn a 'living' wage, we think the University may create a Diploma in Education. A diploma granted by a university is likely to have greater attraction for this class of teacher than the present Secondary Teachers' Certificate which is awarded on conditions that do not give it much value. It might also help graduate teachers who are unable to undertake a year's training in a training college. Candidates for this diploma should be certified to have satisfactorily completed the First Year's course in an Arts College; * and for at least two years to have served on the staff of a school approved by the University for this purpose (such school should have at least a Head Master competent to train teachers); and be certified by the Head Master to have been satisfactorily through the course of training prescribed by him. They must also have attended at least once the vacation course in education of the University Department, or the course of 'evening classes' of the Government Secondary Training College: and they must pass a University examination in the theory and practice of education.

147. Recognition and aid of High Schools.

To begin with, a definite proportion of teachers who are graduates and a smaller proportion of trained teachers should be laid down as necessary

*Note.—I think they should have passed the intermediate examination of the University.—Secretary.

in future for recognition of High Schools by the University. Schools already recognised may be given sufficient time within which to secure the required proportion of trained teachers. In fixing the proportion mentioned above, the University must have due regard to the supply of trained teachers available and the circumstances of the school or locality to which the rule is to be applied. The qualification demanded in respect of training may be, at the outset, a B. T. or L. T. or diploma of any recognised University or the Secondary Training College Diploma of the Bombay Educational Department or a corresponding diploma of other Indian provincial Governments. The University must insist on annual returns of staffs of recognised High Schools showing the educational qualifications and length of service in the school of every teacher. The Educational Department of the Bombay Government should give a special grant to aided schools for every trained teacher employed in the school *throughout the year* on which the grant is calculated. The grant per head might vary with the value of the training qualifications according to a fixed scale of values.

148. Inspection of High Schools.

The University now proposes to have a full-time Secretary of the School Leaving Examination Board whose duties will include inspection of schools for recognition and who presumably will often have with him another representative of the University. The University will also receive copies of the reports of the Government Inspectors. In view of the importance we are attaching to the training of teachers, we think that no one should be appointed Inspector of Schools whether by Government or the University, unless he has gone through a course of training and has an M.T. or B.T. or equivalent degree. And we suggest to Government that its inspecting officers might be sent up periodically for a term of approved educational research or study in some institution for educational training. The Principal of the Secondary Training College suggested to us that every year a few of the best B. T. graduates from his College might be attached for a few months to a Deputy Educational Inspector for the purpose of visiting schools and studying school methods. We think this might be beneficial.

149. Organisation of Teachers.

A feature of education in India is the lack of organization among teachers. It is symptomatic of the want of vocational enthusiasm we have already noted and it is responsible to a large extent for the apparent powerlessness of the teacher to improve his status and prospects. With organization would come increased opportunities for individual work, intellectual stimulus, professional interest, added power, all that gives life and value to work. The University should encourage the formation of Associations of Head Masters and Mistresses, and of Assistant Teachers and offer facilities for their educational activities. Vacation conferences in the University buildings would bring the mofussil schools into direct touch with the University. The University

teaching staff should give a lead in organizing discussions, reading papers, lectures, study circles, etc. Above all the University should encourage the creation of Provident Funds for teachers in connection with every recognised High School and might well declare the existence of such a Fund an essential part of the organisation of every school which seeks recognition.

Note H.

By Mr. K. Natarajan on the Training of Undergraduate Teachers.

"I think that more adequate provision requires to be made for training undergraduate teachers. I would point out that there were, in 1921-22, 463 secondary schools in the Presidency and Indian States educationally affiliated to it. The number of teachers in these institutions was 3,530, of whom 1,251 or 35·3 per cent. were graduates. The number of trained teachers was 852 or 24·1 per cent. including in that term certificate holders.* It will be noted that nearly two-thirds of the teachers in secondary schools are not graduates, and only one-third are graduates. While it may be expected that the proportion of graduate teachers will increase, the secondary schools for many years will have to continue to employ a considerable proportion of undergraduate teachers for the lower standards. It follows that, in any scheme to improve teaching in the schools by increasing the proportion of trained teachers, adequate provision must be made for training undergraduate teachers. This is the more necessary as bad teaching in the lower standards is sure to a large extent to hamper the best teaching in the higher. The provisions proposed for undergraduate teachers are (*a*) a diploma to be granted by the University and (*b*) 'evening classes' of the Secondary Training College and vacation courses of the University Educational Department. These are (1) inadequate and (2) unsuitable. They are *inadequate* because it will be obviously difficult for undergraduate teachers from all over the Presidency to attend the evening classes of the Secondary Training College in Bombay or the vacation course of the University which can be at most held at a few centres. Even if we ignore the consideration that the hard-worked schoolmaster must have some time for recuperation after the term's work, the expense and inconvenience involved will be deterrent in many cases. The other objection that the provision comtemplated is *unsuitable* is even more serious. The undergraduate teacher needs not only training in the technique of the profession, but also some instruction in general subjects, in order to fit him for his duties. This is recognised in the secondary training schools which, in Madras and the United Provinces, are specially intended to train undergraduate teachers. The course in these schools is two years instead of one year in the Training Colleges for graduate teachers. In these two Provinces this class of institutions

*The figures are taken from the Bombay Quinquennial Report for 1917-18 to 1921-22. The secondary schools include also Anglo-Vernacular middle schools. The figures are for British Districts only. The High Schools in Indian States affiliated to the University are not included.

has been the principal means of raising the proportion of trained teachers in secondary schools. The time when it can be laid down that only graduates should be employed as teachers in secondary schools is more distant than is contemplated, and the provision of adequate and suitable training for undergraduate teachers is absolutely necessary, and this can be done only in special institutions as in other parts of India. There should at least be four such, one in each division of the Presidency, besides an undergraduates' side to the Bombay College with suitable stipends. In view of the raising of the standard of the Matriculation, so as to make it fit entrance to a vocational school, there is no need to prescribe the First Year course as necessary to admit candidates to a teacher's diploma."

K. NATARAJAN.

Note I.

By Mr. M. R. Jayakar on the Training of Teachers.

"I agree with the above note of Mr. K. Natarajan. Personally I am very sceptical about these teaching courses. I have seen a few specimens of the graduates turned out of the Training Colleges, and my experience is that they are apt to concentrate more on the technique than the substance of their work. I myself was educated at a time when teaching colleges were little known, and all those teachers who have left an impression on my mind and whose teaching and example have acted as an inspiration, were noted more for their lofty character, imaginative sympathy and generous understanding than for their methods and technique of instruction. I believe that we are, in the present chapter, exaggerating the importance of teaching methods, and all our recommendations are being centred round one institution, which in course of time, may or may not retain its efficiency. Teaching, in my opinion, is a God-given faculty, and although it is possible, as in music, to improve up to a limit its technique and methods, these can never replace its absence. I have, however, not thought it necessary to differ substantially from my colleagues, except so far as this note implies. I have likewise grave doubts whether teaching as a subject of post-graduate studies in the University, will prove beneficial. I confess that I dislike experimenting on boys in a demonstration class."

M. R. JAYAKAR.

B. Law.

150. The Law Class in Bombay.

We have not attempted a detailed examination of legal studies but have only considered certain points that were brought to our notice. In particular we see no reason to reopen the question of a full-time Law College in Bombay since that question was fully explored by a committee in 1916 and negatived. The Law classes can well continue to be held in

the morning and evening. It was suggested to us that, in pursuance of its policy of taking responsibility for post-graduate courses, the University should take over the management of the Government Law School, Bombay. This would mean provision of class rooms and of a Hostel and at present with so many other more urgent calls upon its funds, we do not recommend it. But it might well be the aim of the University to do this ultimately.* A third point raised in connection with the Government Law School in Bombay was the method of appointing its staff. We think the method unsatisfactory in that in such appointments regard is sometimes shown for race or community, sometimes they are treated as opportunity for patronage of struggling barristers or as consolation prizes for the unsuccessful at the bar: insufficient regard is sometimes shown for qualifications: and the time limit on the tenure of the appointments sometimes causes an efficient teacher to be replaced by one less efficient. We think that a Law School should be a valuable agency for instruction in an important branch of learning. Those responsible should see that the syllabus is drawn upon sound lines, that the teachers are men who can treat their subject from the point of view of general principles as well as command the respect of their students, and that the classes are so conducted that they are regarded not as a compulsory yet negligible routine but as a valuable aid necessary to success. We doubt whether the classes have at present such a reputation.

151. Other Law Classes.

We see no objection to the Poona Law Class being affiliated to a University at Poona, if the High Court is prepared to give that University the same privileges as the University of Bombay. And we think that the affiliation of other Law Classes, *e.g.*, at Baroda, might relieve Bombay still further of its excessive numbers.

152. The Courses.

The Calcutta Commission (Chapter 45, Sec. 3) strongly approved of the prolongation of the Law courses from two to three, if not four years, urging that the assimilation of new ideas requires the lapse of adequate time. We are not in favour of such an extension. Law students are men of mature years already graduates and they have ample time to assimilate legal ideas during the early years when a practice has still to be built up. It has been pointed out to us, and we admit a large amount of truth in the criticism, that the courses of this University seem to have too much in view the practice of the lawyer and case law and too little the science and principles of law. This was not the conception of the Law School when it was founded. In 1868, the Chancellor, Sir H. W. R. Fitzgerald, in his Convocation address, said, " The University examination in law is not an examination in the knowledge which qualifies a man to be a successful practitioner—it is not a knowledge of cases and decisions and practice. It is a knowledge of the principles of law and jurisprudence—it is a knowledge of the history of

* Mr. Mirza Ali Mohammed Khan is opposed to the proposal that the University should take over teaching for the LL.B. degree.

law". The University's courses, include Criminal (First LL.B.) and Civil (Second LL.B.) Procedure. We doubt whether procedure can be taught by lectures or from books or in fact in any way except by experience gained in the Courts. Other Indian Universities only prescribe the general *principles* of Civil and Criminal Procedure and we recommend the alteration of the Bombay courses accordingly. Again the Bombay courses include Constitutional Law without any mention of constitutional or legal history, which seems a necessary accompaniment. Nor is legal history (*e.g.*, history of the law of evidence or of real and personal property) included in the Bombay LL.M. course as it is in Calcutta. An adequate study of the science and principles of the law cannot be made without reference to its history and here too we think amendment of the course necessary. With regard to methods of teaching we think Bombay may also follow Calcutta in laying down that attendance at 12 sittings of a Moot Court shall be a necessary part of the students' attendance. We think too that Professors should make arrangements to secure that each student writes periodical essays and submits them for discussion. A reduction in the numbers of the class by affiliation of other schools will assist this.

C. Medicine and Surgery and Dentistry.

153. The demand for a standard lower than the Bombay M.B., B.S.

Our Committee is not constituted for detailed criticism or discussion of so technical a subject as this. Further the M.B., B.S. courses have been recently revised and brought into line with the requirements of the British Medical Council. But one important suggestion made to us requires consideration—the suggestion that there is need of a medical course and degree of a lower standard than the present M.B., B.S. The form in which this suggestion was made by one witness was that the M.B., B.S. course should be divided into Pass and Honours courses, the former devised to suit a considerable number who do not need a qualification equal to that demanded by the British Medical Council but suited to the needs of a general practitioner in this country and to the average capacity of the student in India. With regard to this form of the suggestion we find that our other medical witnesses do not support it and that the Bombay College of Physicians and Surgeons have already instituted a course and degree lower than the M.B., B.S. and have under consideration the revision and improvement of it. This course seems to fulfil the purpose that was once served by the L.M. & S. course which the University formerly conducted but abandoned. We do not therefore feel that we can support the suggestion in this form. The other form of the suggestion came from the President of the National Medical College, Bombay, in letters which we print in Appendix No. 13. The scheme there proposed is for a cheaper and shorter course for "Licensed Medical Practitioners" who, after passing the revised School Leaving Examination with its Science options, undergo a three years' course, pass an examination to be conducted by the University and then

will, it is proposed, practise in the villages and small towns. We have every sympathy with the purpose of the proposers, to supply qualified practitioners for the mofussil, but we do not think the course of study and the qualification proposed are such as it would be proper for a university to approve. Recognition of a course qualifying merely for a license to practise should, we suggest, be sought from the College of Physicians and Surgeons.

154. Ayurvedic and Unani systems.

We agree with the Calcutta University Commission's Report (Chapter 44, Section 26) in thinking it desirable to create a University chair of pharmacology and materia medica and that the professor's department should be required to make a systematic investigation of the drugs used in the Ayurvedic and Unani systems as well as of other drugs produced in India. There is great need of reviving a scientific study of the ancient medical systems of India, both Hindu and Mahomedan. There is excellent material available in books, which permit of an inexhaustible research at the hands of a student trained in modern methods of careful and accurate investigation. These systems of medicine, which even now are availed of by a large section of the Indian people, furnish a substitute which, if scientifically explored and established, will relieve the suffering of large masses of the Indian population. They contain the experience and knowledge of many centuries of devoted work, and are, besides, specially adapted to the constitution and peculiarities of the people of the country. Any attempt to remodel and organize them on modern lines is worthy, on our opinion, of an Indian University.

155. Medical Research.

From such evidence as we have received we believe that medical research creeives scant attention in Bombay. There are of course the Bacteriological and Pharmacological Research Laboratories at Parel, but with the exception of some work done in the Physiological Laboratory of the Grant Medical College and the work of Dr. Rao, we do not find much evidence of research at the Grant Medical College or generally among the practitioners of Bombay. It seems that few medical graduates can afford time or money for research but one and all desire to start in practice as soon as possible. It is not so much want of facilities. In addition to the above there are, to mention two only, the Adams Wylie Memorial Hospital and Dr. Masina's Hospital; at the latter scholarships of Rs. 100 per mensem and free board, lodging and materials of research do not seem to have attracted the right type of research student. Neither the material nor the patients nor facilities nor guidance are lacking. It is rather the will and the desire, and the requisite experience. The training at the Grant Medical College must be improved as we suggest below: the staff must be willing, and must reserve, time to set an example in this direction and to incite the students to follow. In view of the great pressure on the Grant Medical College it would be

wise to distribute such research work and we suggest that institutions like the Adams Wylie Memorial Hospital and Dr. Masina's Hospital and, when fully equipped, the Gordhandas Sundardas Medical College and King Edward Hospital might be found by the University suitable centres for research and that arrangements should be made for affiliating them for that purpose. Further we suggest that the M.D. and M.S., also the B.Hy. and D.H., be treated as post-graduate degrees. For the first two of these two years' training after the M.B., B.S. should be necessary and the degree awarded on examination or examination combined with thesis: if the thesis is of very high merit the examination might be dispensed with. For Hygiene the existing courses may serve. We also think that an honorary M.D. or M.S., might be granted to graduates of Bombay University who have made distinguished contribution to medical science.

56. Facilities for Medical Study.

It is recognised by all concerned that there is an urgent need of more hospital accommodation, clinical material and facilities for medical study. This is receiving Government's attention and it is sufficient for us to endorse the urgency of the necessity not only in Bombay but also in Poona and Ahmedabad. We agree that Medical Colleges are required at those centres, and we think that they should be supplied with the requisites for raising their study to the level of the M.B., B.S.

157. Appointment of Professors at the Medical College.

We are opposed to the principle, hitherto followed by Government in connection with certain professorships, which have been reserved for the exclusive benefit of the members of certain Services, apart from the personal merits of the holder or the needs of the institution to which he is appointed.* Major Higham, the Dean of the Grant Medical College, in his oral evidence, was frank enough to state that, at his college, such professorships are maintained even now, and that the view taken by the Indian Medical Service of these posts is that they are meant as "plums" for the I.M.S. and that their removal from that category will be a "breach of faith" with the Service people. In our opinion, this is a wrong principle to follow in connection with educational appointments, and the practice should be discontinued as early as possible.

158. Dentistry.

It has been suggested to us that the University should make more adequate provision for the study of Dentistry. To this suggestion

Note by the Secretary.—It is not correct to say that Government follow a principle of reserving certain professorships for the benefit of a Service *apart from the merits of the holders or the needs of the institution.* Neither the merits of the holders nor the needs of the College are disregarded. Major Higham pointed out that Government have to reconcile the exigencies of the Service with the needs of the College and this is true of other Services and Colleges too. By giving a certain number of professorial appointments to members of the Service, the Service is rendered attractive to good men: while the needs of the college are served by attracting good men to the Service and by selecting other good men from outside it.

objection has been raised that the inhabitants of this country, thanks to their vegetarian diet and simple habits, are much less subject to dental diseases prevalent in Europe; that owing to poverty those whose teeth are decayed cannot afford to have them treated; and that consequently there will be no great demand for professional dentists. On the other hand it is contended that if teeth in India are less subject to decay, there is still, especially in the large towns, a considerable demand for dental treatment; that the growth of European habits of life is encouraging dental troubles; that many other diseases are traceable to dental decay or disease and that in the absence of specialists and of special instruction, the causes of those diseases that spring from the teeth not infrequently go undetected; and that special study of the teeth among a people accustomed to a diet so different from that of Europeans offers special opportunity of research and discovery. We are disposed to think that the latter contentions are of sufficient weight to justify further provision for specialisation in dentistry. At present the new M.B., B.S. course, Part II, of this University requires candidates to have had instruction in the form of systematic and clinical lectures in dentistry. There seems to be no provision for dentistry other than this. In the Calcutta University no provision seems yet to have been made by the University. The Commission stated (Chapter 44, Section 33) that they were not prepared to recommend the establishment of a dental degree in the first instance but thought there was a fair opening for properly qualified dentists and recommended that a dental department be opened at the Calcutta Medical College. What is required in Bombay is a small dental hospital and dental laboratory where the requisite surgical and mechanical training could be obtained. When these are available, the University may institute a regular course for a degree in dental surgery. In the meantime Dental Surgery might be included as an optional special subject for the degree of M.S., as is done in Madras. If the University could find funds, it might institute a department of dentistry, but its teaching of the subject would be of little real value unless a dental hospital and laboratory were available.

D. The Fine Arts.

159. The demand for their recognition by the University.

A number of witnesses have recommended the immediate institution of a Faculty of Fine Arts; "The Bombay School of Art, the Kala Bhavan and the picture gallery in Baroda, as also the schools of Music in various towns in the Presidency form ready materials with which the work of training in Fine Arts could be undertaken" (Mr. N. K. Dikshit, Educational Commissioner, Baroda, No. 61). The grounds for this proposal are various but clear. India is a country in which in the past the Fine Arts were extensively practised and attained a high and distinctive character. These arts are now neglected, their principles are not understood and æsthetic taste is generally in a low state. The only agencies that in the nineteenth century attempted to convey artistic training have been schools for the most part conducted by Europeans

or managed under the influence of European ideas of art. There is among the better educated and especially among patriotically-minded Indians a strong desire to free India from the reproach of the neglect of art and the absence of good taste. This desire has of recent years been strengthened by the success which has attended two schools of Indian art, in Bengal and Bombay. Both of these aim at the expression of Oriental or Indian sentiment and thought; at the presentation of the facts of nature, human or inanimate, as they are in India and the East or as they present themselves to Indian eyes and temperament; and at the revival of former Indian crafts and treatment of materials. In addition to these schools of painting, drawing, sculpture and handicraft, there is also a movement to check a similar decline of interest and decay of skill in Indian music. Now the first requisite for a revival of the arts in India is an appreciation of their past history and the nature of their achievement; and the second is a sense of what is good and beautiful in art, whether Oriental or Western. In other words, Indian art must be founded on a natural or acquired culture and good taste. It is in the promotion of this that a university can best help the Fine Arts. In a country like India where education is limited to so small a number, those who take up the study of the arts as a profession have usually little or none of the culture that alone can make the study really fruitful. Art draws its inspiration not only from nature but from all the activities of man. A knowledge of the world about him, of man's achievement in the past, of the methods and materials of art successfully used and adapted, of ideas and ideals expressed or suggested in the various media, of the distinctive features of his own race and civilization, is necessary to set free the artist's capacity of self-expression. And if the artist must be fully educated for his work, the public must be educated to appreciate it. The ineffectiveness of Indian schools of art is due not so much to faults in the training as to the paucity of educated men with artistic genius and of a cultivated public to give employment to the artist. University education has reached but a small section of India's vast population, and university education has hitherto concentrated on the literary arts to the neglect of others. Painting, Drawing and all the other forms of pictorial presentation, sculpture, architecture, music and the various handicrafts require to be brought within the scope of a university's teaching not merely to aid literature and history but because the study of them leads us to the understanding of some of the deepest and most important principles of humanity, life and the world: principles of truth and beauty that help us to see ourselves, our little products and the world about us in relation to the universe and Deity.

160. A Faculty of Fine Arts.

Admitting the claim of the Fine Arts to a university's attention, does that involve the creation of a Faculty. These arts of music, painting, drawing, sculpture may be studied both as forms of culture and as professional arts. In the former light they may combined with

literature, history and philosophy under a Faculty of Arts: in the latter they seem more properly to be directed by professional bodies whose expert knowledge can lay down the technique required and the standards to be observed in the public interest. At London University, the Faculty of Arts includes the Department of Fine Arts of the Slade School and also the School of Architecture: a special diploma is given in each case. At Reading and Newcastle similar arrangements appear to exist. At Oxford there is a committee for the Fine Arts made up of the Vice-Chancellor,. two Professors, five curators of museums and one representative of each of the faculties of Literae Humaniores, Modern History, Modern Languages and Natural Science: the committee has power to arrange lectures and courses and give diplomas. In some universities Architecture belongs to the Faculty of Applied Sciences. A Faculty without a school or schools recognised by the University seems anomalous and at present there is in Bombay no school recognised, nor have we a definite scheme of recognition to put forward. But we do not think this need stand in the way of the creation of a Faculty. The object we have in view is to make the University itself a source of instruction in the Fine Arts and a means of encouraging the students of the professional art schools, not only to take up the cultural side of the art along side of the technical, but also to carry their general education up to Matriculation or even higher stage before they enter the professional schools—in short to get a higher grade of general education among art students and some knowledge of, and taste for, art among university students and the general public. We think that a Faculty would be a suitable body to organize this. We therefore recommend the formation of a Faculty of Fine Arts, comprising the following departments, (*i*) Painting, Drawing and Sculpture, (*ii*) Architecture, and (*iii*) Music. The Faculty might be divided into three corresponding Committees or Boards of Studies. The Sir J. J. School of Art in all its branches should be represented in the Faculty of Fine Arts.

161. The Sir J. J. School of Art: Painting, Drawing, Sculpture.

We had hoped for a scheme from the Principal of the Sir J. J. School of Art in respect of the relation of his School to the University. But he has not been able to submit it in time. In view, however, of the fact that few, if any, of the students of the schools of Painting, Drawing and Sculpture or of Architecture have carried their education up even to Matriculation standard, it appears best to postpone for the present the proposal to affiliate the school to the University. This is the more reasonable in that, under its present Principal, the school has attained an increased popularity and some fame as initiating a revival of India's former art of mural decoration. It is probably best to let the Principal continue to work out the destinies of his institution on his own lines. Should he desire the co-operation of the University, the latter should be willing. At present its help would seem to be most needed in educating public taste and encouraging students to take an interest in the principles and history of the art they practise. For this purpose probably the

same arrangements as we have proposed in the case of the School of Architecture (see below, paragraph 163) would serve for the School of Painting and Sculpture, *viz.*, that the principles and history of each of these subjects should be included in the list of optionals for the B.A., one or both of which the Pass student might take, the Honours student taking one as Principal and the other subsidiary: and that students of the school should be admissible to the University lectures and examinations, and, if Matriculates as well as diplomates of the school, may be given a distinctive bachelor's degree on passing the University examinations in these subjects. Instruction may be given through a university Professor of Painting and Sculpture.

162. Drawing.

Objection has been raised to the combination of drawing with manual training in one head of examination, as it was in the syllabus of the Joint School Leaving Examination Board. It has been said that if drawing can only be studied along with manual training, drawing will not be studied at all. The Committee finds, however, that the two are separated in the new School Leaving Examination Regulations and we trust that the new Board will lay down a really practical syllabus. The syllabus should be so devised as to make the study of drawing a foundation on which may be based the instruction in Painting and Sculpture in a School of Art. We suggest that the syllabus might include (1) drawing from the object, (2) drawing from life, (3) memory drawing, (4) illustration (to test imagination), (5) design, (6) mathematical drawing, and (7) the outlines of the history of art. In a question paper on the last, No. 7, candidates should have a large choice of questions and be asked to illustrate some answers by drawings. One object of this paper is to stimulate an interest in Art in its relation to other branches of knowledge, *e.g.*, history, archæology, religion, sociology, and so prepare the way for the classes on these subjects as well as on painting, sculpture, architecture at the B.A. stage.

163. Architecture.

In or about 1914 the Faculty of Engineering drew up regulations for a course and degree in Architecture. The qualifications for this course were the First Year College certificate in English, Physics and Mathematics and a Bombay School of Art certificate of passing the Second grade examination in drawing. After admission the student was to study a three-years' course with an examination at the end of each year. The course for the last two years included Architectural Drawing, Hygiene, Quantity Surveying, Building Construction, Principles of Architecture, Architectural Design, Modelling, Drawing from Life and Cast, Electrical Engineering, History of Architecture and some other details. Before sending this proposal to the Senate the Syndicate enquired of Government what prospect there was of facilities for teaching the course being provided. On learning that Government, on account of the war, could make no provision, the scheme was suspended. There is, however, a School of Architecture forming part of the J. J. School of Art. Students of this

school study a course drawn up by professional architects and, if successful, receive a diploma. Their course is not the same as that designed for a degree in Architecture by the Engineering Faculty and we understand that the latter is thought by some to lay too much stress on the engineering and technical side. The Diploma course on the other hand appears to meet the needs of the students and the profession and those who are successful are easily able to find suitable employment. It appears to us therefore unwise for the University to set up a rival professional course of its own, and that it would be better for it to encourage the development of the existing school under the control of professional Associations. There is already among the professional architects of Bombay a sufficient body of knowledge and artistic taste and feeling to make them competent to frame instruction in this science on sound professional and æsthetic lines. We do not therefore advise that the J. J. School of Architecture be affiliated to the University: we do not think that the bestowal of a university degree would add any value in the eyes of the profession to the qualification of the diplomate: and the profession might be jealous of any interference by the University in the technical part of the courses it had prescribed. On the other hand the educational qualification for entrance to the diploma course is very low, lower than the Matriculation or First Year. The profession and the teachers of the school would be glad to get more cultured men. The University might help to remedy this state of things and supply to the school a greater number of better educated candidates or encourage diplomates to get a higher cultural value out of their professional studies. We suggest therefore that the University include architecture as an optional subject for the B.A. pass and B.A. Honours degree. In the Pass course this might mean study of the principles of architecture: in the Honours course study of the principles of architecture as a principal subject and the history of architecture as subsidiary subject (or *vice versa*). It may be arranged that such students, while preparing for this group for their B.A. degree, may be allowed to attend courses of instruction in the subject of the Sir J. J. School of Art. Further, it is possible that some graduates might be led to take up architecture as a profession and after graduation enter the J. J. School. Such graduates would probably be admitted to a shortened course at the school. On the other hand diplomates of the J. J. School or of any school recognised by the Royal Institute of British Architects might be allowed to attend the University Pass or Honours courses and on passing the B.A. examination in the subject be granted a diploma: or, if already a Matriculate, a B.A. degree. The University would have to provide lecturers to teach these courses: the lectures might well be given in the evening or morning. Lecturers would have to give 3 or 4 lectures a week and might be paid at the rate of Rs. 50 a lecture. The lecturers would be chosen from the staff of the J. J. School or from practising architects or from other persons qualified to lecture on the subjects suggested. There might also be lectures on these subjects open to the public with a view to diffusing knowledge of the history and principles of this branch of the Fine Arts.

164. Music.

Many witnesses have urged that the University include music in one of its Faculties, particularly urging the immediate need to raise Indian music to a proper level among the arts. We consulted several gentlemen known to be interested in music and in Appendix No. 14 we print their replies. It will be seen that there is a body of expert opinion in favour of the University coming forward to encourage a study of music both Indian and European. We are inclined to agree with this opinion and would be glad to see steps taken. But it is important to decide, of both European and Indian music, what are the purposes of the University in this matter. It may aim to encourage the creation of professional practitioners, the training of students in the practice of music for the private delectation of themselves and their friends, the development of a capacity of original composition, or of an understanding of the science underlying and the history surrounding the art. A grasp of the science of music will not of itself make a skilful practitioner or a composer, though it may help to make a good critic. A university's academic teaching of music is not as a rule sought by professionals and its value lies perhaps more in training the taste of students and the educated public, than in producing expert musicians. From this point of view a Professor of Music might, under a Faculty of *Arts* do useful work in creating a taste for good music as a Professor of Poetry creates a taste for good literature. It might be thought that, as in the case of Architecture, the training of musicians should be left to professional institutions as is done in Europe. But in this country conditions are very different. For Architecture, Painting and Sculpture there is a well organised and directed school. There is at present, as Mr. Behr points out, no central or dominati g authority or institution guiding either Western or Indian music. A body of recognised authority, such as a Department of Music of the Bombay University might become, might make music a valuable part of the University educational system by undertaking the supervision of a new institution constituted on sound lines. Western music is neglected, its teaching left in the hands of private people and its examination conducted by rival institutions in Europe competing for the patronage and fees of school children. The study of Indian music is even more neglected and action is even more urgently required to organize its study on a proper basis, if this ancient and once highly developed art is not to be lost through indifference, jealous rivalries and unscientific, empirical or ignorant practice. It is known that there is diversity of opinion as to the proper notation theory of Indian music and this coupled with the ignorance or indifference of many professional Indian musicians as to the principles of their art threatens to diminish or destroy the practice of the art. The interests of education as well as a justifiable national pride demand that steps should be taken and in the absence of any recognised authority the University may well offer its help. We think then that the University should set itself to encourage in schools and colleges the recognition of the educational and cultural value of music and the practice of the art by those who have a natural taste for it: and in the case of Indian music should

also endeavour to bring about understanding and agreement in matters where diversity or conflict exists at present. We do not ourselves attempt to define more exactly what can or should be done. But we recommend the University to appoint a committee of experts to go into the whole question of the part music should play in university education, the details of any courses of instruction to be given and the measures necessary for the establishment of institutions to impart instruction. The Committee should consider how far and at what stage music should find a place in the school curriculum, so that the student, who takes music in his college course, may have a sufficient introduction to the subject and the necessary grounding in its principles. The Committee should further consider the desirability of introducing music as one of the subjects that may be taken at the School Leaving Examination. It should also determine whether a student wishing to specialise in music should enter upon a course in that subject after matriculating or whether the point of bifurcation should be at some later stage: also whether the specialised course in Music should be a course solely in that subject or whether there should be coupled with it instruction in some other subjects of general culture.

165. Schemes for teaching of Eastern and Western Music.

We have been supplied by Mr. V. N. Bhatkhande, who has devoted many years to the study and practices of Indian Music, with a scheme for a university course in Indian Music which we print in Appendix No. 15. Similarly we have received from Mr. Edward Behr, Director of the Bombay Symphony Orchestra, a scheme for an Academy or College of Music in Bombay (printed in the same Appendix). This scheme proposes the foundation in the city of an academy or college of Western Music, after the style of the Royal College of Music or Royal Academy of Music, London, and combined with the Bombay Symphony Orchestra: it is hoped that this college or academy will receive recognition by the University and that the Director of this College or Academy, if considered suitable by the University, may be appointed the Professor for University postgraduate studies in Western Music. We recommend both these schemes to the careful and sympathetic consideration of the committee of experts we have suggested. In our opinion it is desirable that the University should take a part in encouraging and organizing higher University instruction in both Indian and Western music: we hope the expert committee will be able to elaborate a detailed scheme for the establishment of proper institutions for the purpose and to link them satisfactorily with the University system.

E. Veterinary Education.

166. A proposal for a University degree in Veterinary Science.

We have been addressed by Mr. V. E. Vakharia, retired Professor of the Bombay Veterinary College and President, Veterinary Graduates' Association, forwarding a resolution passed at a meeting of the Association

in March 1924, that the Bombay Veterinary College should be affiliated to the University of Bombay. This is a proposal of long standing. We have acquainted ourselves so far as possible with the varying views that have been taken of the proposal and in Appendix No. 16 we summarize the history and the arguments adduced for and against it. In view of the recent resolution of the Government of Bombay (Revenue Department No. 6634 of 24th November 1924), after consulting the Principal of the Bombay Veterinary College, and after consideration of the arguments adduced for and against, we do not think the present a suitable time for instituting a University degree of Veterinary Science nor do we find evidence of a real public demand for such a degree.

CHAPTER XV.

HOUSING AND WELFARE OF STUDENTS.

167. Conditions of residence.

The Universities Act of 1904, clause 21 (1) (*c*) and (*f*), lays down that before affiliation the Syndicate shall be satisfied that provision will be made, in conformity with the regulations, for the residence in the college or in lodgings approved by the college of students not residing with their parents or guardians and for the supervision and physical welfare of students: and that provision will be made for the residence of the Principal and some members of the staff in or near the college or the students' hostel. This requirement is enforced by an inspection of the college before affiliation is granted. But we believe the committee seldom if ever inspect or go closely into the approval of places where students live except when they are living in hostels. The only '*regulations*' in force are numbers 11 and 12 of the "inter-collegiate rules*" and the rules for inspection of colleges on pages 467-8 of the current Bombay University Calendar. These inter-collegiate rules, we believe, are also not enforced and the reports of committees for periodical inspection seldom if ever make any remarks that show that they have actually inspected students' lodgings (as distinguished from Hostels). On the other hand the Syndicate is informed yearly of the number of students at each college who reside in college hostels and the number is on the average about one-third. A large number of those who do not live in the college hostel reside with parents, relations or guardians. We think therefore that the main ground for complaint against the University is not so much that the conditions of life and residence of the students are positively bad, but that it is left too much to chance whether they are good or bad. That a number of students do live in very unsatisfactory conditions is certain. But these are mostly very poor students whom it would be difficult to provide for, short of granting them free lodgings. We are of opinion that a certain proportion of free lodgings should be provided for really poor students.

* 11. Each college shall provide residential quarters for such a percentage of its student as the Syndicate may from time to time approve.

12. Those who do not live in college residencial quarters or with their parents or guardians shall live in lodgings known to, and approved by, the authorities of the college to which they belong.

168. Inspection of Colleges.

The remedies we suggest for this state of things is the appointment of the Board recommended in the next paragraph and a stricter inspection of colleges. With regard to the latter, the Syndicate adopted in 1924-25 a new system of triennial inspection which is intended to secure a more detailed inspection, and we believe is working in that way. It is not easy to provide for such inspections for they demand a great deal of time and care of the members of the committee appointed for that purpose. The only suggestions for improvement that we can offer

are that the new university full-time officer whom we are proposing, the Rector, should normally be one of the committee: that on the committee which inspects professional colleges there should be a larger proportion of men engaged in the profession concerned: and that the Syndicate should emphasize the necessity of such inspection being very thorough and including the proportion of teachers to students, the number in each class, sanitation, housing (whether in private lodgings or hostels), health and general welfare of the students.

169. A Board of Students' Welfare.

It would probably contribute greatly to improvement in this respect if this aspect of University life were placed under the care of a special Board, as proposed by the Calcutta University Commission (*vide* their report, Chapter 29, Sec. 37). The Board might be composed of the Rector, the University Director of Physical Education (*see* below paragraph 170), a few Principals, medical men, and members of the Senate or the public with direct knowledge of student life. This Board might be appointed by the Syndicate. Its functions would be —

(1) to make frequent inspection of University and College Hostels, and report to the Syndicate thereon;
(2) to organise medical inspection of students;
(3) to report to the Syndicate on the causes of ill-health among students;
(4) to organise physical training and inter-collegiate sports or games;
(5) to assist the Syndicate in drafting regulations for the conduct of hostels and residence of students;
(6) to report on a scheme of licensed lodgings for Bombay and other towns;
(7) to prepare dietaries for the guidance of students, etc.

170. A University Director of Physical Training.

There appears no doubt that the proportion of students who take an active and continuous share in college or other games and sports is not as large as it might or should be. This is one cause of the poor physique of students and of their liability to illness. It is also beyond doubt that too large a proportion of the staffs of colleges take no interest or part in college games. Government has recently appointed a Director of Physical Training for schools and we strongly advocate the University making a similar appointment for college students. Such a University Director might be either a medical man with a qualified Instructor for physical training working under him, or an expert in physical training with sufficient medical and physiological knowledge, according as medical or physical aspects are regarded as primary. If, as we think is very desirable, a medical examination of every student is to be held twice during his four years' college career, and a record kept, the former arrangement might be best. For the medical inspection at mofussil colleges it might be necessary to employ local medical

men on a small honorarium. It would be part of the duty of the Director to organise physical training and University games and sports and visit mofussil colleges for the purpose: another of his duties would be to train members of the college staffs to conduct regular physical training.

171. The University Training Corps.

We are agreed that the University Training Corps is exercising a most beneficial physical and moral effect on those who join it. We discussed at some length a proposal that service in the Corps should be compulsory on all students not declared by a doctor to be physically unfit.

(*i*) A majority was agreed to make such service compulsory. In the view of this majority military training in the present state of Indian society is an absolute necessity. It will teach the student the art of self-defence and also accustom him to take a proper view of his duties as a citizen. There are at present very few occasions in the corporate life of University students which give them a chance of facing a common danger or undertaking common pursuits of valour and intrepidity. These, in our opinion, are necessary, if the feeling of mutual reliance and confidence is to grow and the self-control and courage of Indian youth are to be developed. We are convinced that, apart from the disciplined life which the undergraduate will lead when in training or in the performance of his duties as a soldier, the mere possession and use of fire-arms will make him more determined, self-reliant, courageous and chivalrous than he can ever be otherwise. The narrow influence of caste and similar social groupings can only be counteracted by putting the undergraduate frequently into situations where he will have to work in juxtaposition with comrades drawn from all classes and communities and where mere intellectual attainments or social birth will count for little. The exaggerated value which examinations or other tests of intellectual excellence are supposed to enjoy in the minds of Indian youth, can only be discounted by a proper course of military training, where intellect will have a value only in so far as it is coupled with daring, endurance and resource—qualities which at present do not receive sufficient attention or encouragement in the University course of studies. We are not unaware of the danger of compulsory military training, as it has been felt in other countries, whose conditions are different from India, but we believe that in India sufficient social and political forces exist to counteract such dangers, and that it will be a long time before the stage is reached when such dangers become a real menace to the social and political growth of the people. We feel that the influence of University education will permeate the more readily to the masses if the latter realise that it equips men not only for intellectual professions and occupations but also for the leadership of organised and disciplined force which is necessary to keep under control the elements of disorder which exist in all communities.

(*ii*) All present were agreed that the University Training Corps ought to be gradually extended so as to be open to all who *wish* and are

physically fit to join it: and also that some form of *physical training* conducted by the colleges should be compulsory for all physically fit for it. The syndicate should appoint a Committee to look after the interests of the University Training Corps.

172. University Hostels.

While provision of satisfactory conditions of residence for undergraduates must remain the duty of the colleges, we think that the University, since it undertakes responsibility for teaching post-graduate students, must also undertake responsibility for their residential accommodation. We have included therefore a hostel for male post-graduate students in our proposals. In Chapter XVI we have declared in favour of women's hostels rather than special colleges for women, and we therefore recommend that the University undertake a hostel to be conducted in the manner there described. Our reason for suggesting that this duty be undertaken by the University is that the number of women students requiring hostel accommodation is for some time likely to be small and that one common hostel for all such would be the most economical arrangement.

173. Compulsory residence in Hostels.

It has been suggested to us that residence in a recognised hostel should be made compulsory for every student of the University. We do not think this would be justifiable in view of the number of students of colleges in large towns who can reside with parents, guardians or near relatives and also in view of the greater economy possible when a student can thus live in the home of a suitable person responsible for him. To enforce the inter-collegiate rules should meet the case and for this purpose the Syndicate must issue orders fixing the percentage that should be accommodated in hostels by each college and holding principals strictly responsible for the lodging of every student not living in the hostel.

174. Students' Union and Club House.

We recognise the need of a Students' University Union and Club House in Bombay and have included the cost of one in our financial estimate (see chapters IV and XVIII). This should be managed by the students themselves with assistance from the Rector and members of the staffs of colleges.

CHAPTER XVI.

THE CONSTITUTION OF THE UNIVERSITY.

175. What led to the University Act of 1904.

The University of Bombay was incorporated by an Act passed in 1857. The constitution provided therein was a very simple one. The Chancellor, Vice-Chancellor and Fellows, forming the Senate, were the only authorities named in the Act, and they were entrusted with the duty of carrying out the single object, stated in the preamble, namely, of "ascertaining, by means of examination, the persons who have acquired proficiency in different branches of Literature, Science and Art, and of rewarding them by Academical degrees as evidence of their respective attainments, and marks of honour proportioned thereunto." There were only two colleges which sent up candidates for the B.A. degree which was first conferred in 1862 on four persons headed by Sir Ramakrishna Bhandarkar, all of whom made their mark on national progress. (Bhandarkar, Ranade, Modak, Wagle.) The period following the establishment of the University was one of political reconstruction. Religious and social reform ideas were gaining ground, and industrialism of the modern type was being first introduced in this Presidency. The half century after the inauguration of the University was thus marked by organic developments in all departments of life. The University of Bombay with its simple constitution proved fully equal to the demands made upon it during this eventful period. In 1904, the late Sir Pherozeshah M. Mehta, who had long and intimate association with the University and was himself one of its most distinguished graduates, could proudly claim that "there was substantial and overwhelming agreement that the present Bombay University system had worked admirably." If Sir Pherozeshah's view was open to the suspicion of having been tinged by filial partiality, no such doubt attached to the testimony of the Honourable Mr. (afterwards Sir) T. Raleigh, the Law Member of the Government of India, who was chairman of the Universities Commission of 1902, and was subsequently in charge of the Universities Bill which was introduced to give effect to its recommendations in the Imperial Legislative Council in 1904. Speaking on an amendment moved by the late Mr. Gokhale to exclude the Bombay University from the scope of that Bill, Sir T. Raleigh said: "There is a great deal in my Honourable colleague's account of his own University which I can cordially accept, and I will admit that if the Bombay University stood alone the case for a Bill of this character would not be so strong as it is. The Western Presidency has enjoyed the advantage of being led in educational matters by men not only of great ability but of great wisdom. These men have set a high standard of what a College in a University ought to be. The result is that the colleges of Bombay are comparatively few, while their standard of efficiency is comparatively very high." It is evident reading between the lines that Sir Thomas Raleigh meant much more than he felt himself free to say, in the position which he occupied as the chief sponsor of the Universities Bill in the Imperial Legislative Council, regarding the work and worth of the Bombay

University. In his remarks Sir Thomas Raleigh put his finger on a very important point. It is that far more than an elaborate written constitution is the need of a University for men of great ability and great wisdom to enable it to fulfil its high duties to the community and to the State. This is a truth which has to be borne in mind in proposals to change the constitution of the University. Are the reforms proposed likely, in effect, to enlist an increasing number of men of great ability and great wisdom in the service of the University? If they are not, they are of no use however cunningly devised and completely symmetrical they may seem on paper.*

176. The University Act of 1904.

The principal changes made by the Act of 1904 in the constitution and functions of the University, are fully explained in our second chapter. Except in one small respect, namely the provision for the election of 10 per cent. of the members of the Senate by graduates, the Act made no concession to the Indian demand for self-determination in the matter of higher education. Indeed, as has been indicated above, the other changes effected by the Act in the constitution of the University were, most of them, opposed to the trend of Indian opinion. The provisions of the Act which evoked the strongest opposition in Bombay were those which related to the limitation in the number and of the term of Fellows of the University, the conversion of the Syndicate into a statutory body with functions independent of the Senate, the considerably increased representation given in both Senate and Syndicate to persons following the teaching profession, and the vesting of the powers of affiliating Colleges, till then exercised by the Senate, in the Governor-in-Council. If experience of the actual working of the Act during the last 20 years, has to a large extent belied the fears of its opponents, it has, and in hardly less measure, belied the hopes also of its supporters. The reason for this result is not far to seek. The legislature gave a new constitution but the human agency by which it had to be worked could not be easily or rapidly changed. Moreover the Act of 1904 enlarged the aim and extended the responsibilities of the University but it did not provide the resources and the machinery needed to fulfil the one and to discharge the other. Teaching and research work had been brought within the scope of the University but owing to want of funds only small progress could be made and that very slowly in these directions. The greater control over Colleges and High Schools whose numbers had increased rapidly during the last twenty years, which the University was required by the Act to exercise, could not be effectively exercised for lack of special agency to undertake this difficult and often delicate duty. In order to meet the new requirements, therefore, the Senate and the Syndicate have to work at a high pressure which makes an excessive demand upon the time and attention of their members who are called upon to pronounce upon a

* Note by the Secretary. I think this paragraph somewhat overstates the case. My recollection is that there was a considerable body of opinion dissatisfied with the state of the University and desirous of reforms on the lines proposed. Perhaps it was not so loudly expressed as Sir Pherozeshah's.

multiplicity of important and trivial matters administrative and academic, which can be dealt with satisfactorily only under a well-conceived system of delegation and division of work. The need of further reforms in the constitution of the University had, as a consequence, begun to be felt a few years after the passing of the Act of 1904. The Sadler Commission's Report gave a strong stimulus to this feeling. The Senate appointed a committee to consider how far the recommendations of the Commission could be adapted to meet the requirements of the Bombay University. The replies of several witnesses to our question show that the disaffection with the present constitution is wide-spread.

177. The defects of the existing constitution.

First and foremost it is complained that the University as constituted does not represent adequately the needs and aspirations of the Community and is not provided with machinery by which it can secure for itself such representation. Eighty per cent. of the Senate are nominated by the Chancellor, ten are elected by registered graduates and ten by the Faculties; *i.e.*, the University only controls the appointment of twenty per cent. of its own Fellows and the academic and expert members of the university only control ten per cent. We have nothing to say about the exercise of the Chancellor's power of nomination: in spite of cases mentioned by the Calcutta Commission (chapter 27, Section 23 note), so far as experience in Bombay shows, nomination by the Chancellor has not habitually impaired the independence of Fellows: we recognise that nomination is a necessary and salutary principle to apply to the constitution of a university, in order to secure proper representation of all elements. But the disproportion between nominated and elected members is here so great that it cannot provide a body of advisers and controllers of the University such as the community as a whole would wish to set up, and as would be likely to feel itself directly responsible for the community's main interests. We have, therefore, proposed to give the elective principle a large preponderance over that of nomination in the constitution of the supreme authority of the University. But not only have the general public not had a right to elect their own representatives, but the institutions most intimately associated with the University, its colleges and schools, have also been without the right and have experienced inadequate representation. The Senate and other university bodies, it is complained, are constituted in no clear relation to the colleges as a whole or to their comparative importance. Mofussil colleges in particular make it a grievance, that they stand no chance of participating in the government of the University or sharing in its counsels. Schools have in the past hardly had any representation. The remoteness of the schools from the University indeed constitutes a third defect, for it goes beyond the mere questions of representation and geographical separation. Hitherto the machinery for keeping the University in touch with secondary education has been singularly defective. Beyond providing for the presence of the Director of Public Instruction as ex-officio member of Senate and Syndicate, the Act and regulations do not provide a single link. The Joint School Leaving Examination Board

was an attempt to remedy this defect. Its function of linking schools and University will be taken up by the new University School Leaving Board which is to include three heads of High Schools, one Inspector and one member of the staff of a Training College. A fourth and very serious defect is the absence of any genuinely academic body in the constitution. The Act of 1904 provides, it is true, that two-fifths of the Fellows elected by the Faculty and nominated by the Chancellor shall be persons following the profession of education. It also provides that a certain proportion of the Syndicate shall be Heads of, or Professors in affiliated colleges; and the regulations fix the number at seven out of fifteen. No academic qualification is laid down for membership of Boards of Studies though in practice these Boards consist preponderantly of teachers. All the work of the University is done by the Senate and Syndicate, neither of which is ever more than half academic in constitution. In short, there is nobody in the University, except the Boards of Studies whose functions are necessarily limited, constituted with a preponderance of the academic element to deal with purely academic questions. A fifth defect follows from this, that the Syndicate is overburdened with work much of which also it is not fully competent to handle. Already it has become necessary to delegate the management of the School Leaving Examination and the recognition of schools to another body specially constituted for this purpose. There is urgent need of a further sub-division of the powers of the Syndicate and the creation of an Academic Council which would leave the Syndicate free to manage its administrative and financial responsibilites with more deliberation and exact knowledge.

178. Further defects: The University understaffed.

Sixthly it is urged with truth that the University is no longer staffed adequately to meet its increasing responsibilities. It has not a single full-time officer to perform the manifold and difficult duties devolving on it, and were it not that its present Registrar has for years actually devoted his whole time and thought to University work, it would have long ago found it impossible to carry on. The University is deeply indebted to its Vice-Chancellors who amidst other onerous work and high responsibilities give a generous share of their time to the University. But the time has now come, it is felt, when there should be in addition to the Vice-Chancellor, and the Registrar, a full-time official of personal influence and academic experience who will devote his whole time to wide questions of academic policy and university development in relation to social and cultural needs; and to a vigorous administration and personal supervision that will not be limited to Bombay island but extend throughout the University's jurisdiction. This would help to remove another defect, the weakness of the University's control over distant colleges and the difficulty of opening intimate relations with them. It is further pointed out that the constitution makes no provision for bringing the University into closer contact with the various interests in the city and the Presidency, so as to render it more likely that the University will secure endowments and be less dependent on fees

than it is now. Such dependence is peculiarly undesirable in any university in whose relationships with its affiliated colleges examination is an important element. A university should depend on the endowments drawn to it by the interest which its work and cultural influence excites, not on the number of examinees it attracts and puts through. But the University of Bombay unfortunately has succeeded in attracting but few endowments of such kind. The benefactions it receives are mostly small foundations for scholarships and prizes, the total amount of which is considerable but whose utility to the University is spoilt by the variety and peculiarity of their conditions and objects. Another weakness is that a great variety of duties devolves on the Senate for which its insufficiently representative character makes it less fit and which compel it to hold many meetings and discuss matters about which many members can have no detailed knowledge. In short, the Senate as at present constituted is neither a properly representative body nor a body of experts.

179. Proposals of the Sadler Commission that are not adopted.

The defects picked out in the previous paragraphs and those alluded to in our second chapter, serious though they admittedly are, do not seem to us to call for the application to our University of all the far reaching changes proposed far Calcutta by the Sadler Commission. Difficulties about co-ordination of work at the centre we have suggested (Chapter IV) may be met by concentration of colleges in a University quarter and the consequences that will flow from that. The incompleteness of the University's development into a teaching University does not in the opinion of the majority of us demand an attempt to convert the University of Bombay into a unitary teaching university (Chapter VII) or to introduce a distinction between constituent and affiliated colleges. We hold that this University, while taking up directly the teaching of post-graduate courses, must remain an affiliating university, though we are willing to see its jurisdiction diminished by the creation, with proper safeguards, of new universities. But we think that to introduce a distinction between the relations of mofussil and of central colleges to the University and to create a special machinery of the nature of a Mofussil Board to deal with the former would not only introduce unnecessary complications and expenditure but would, in the end, prove fatal to the mofussil colleges. It seems to us a better way of encouraging the mofussil colleges to develop their resources, improve their methods and elevate their aims that we should treat them as the equals of the colleges at the centre and incite them to emulate the latter in their equipment, methods and achievements. If they feel that the University regards them as an integral and valuable part of its apparatus of culture, they will respond. Nor, as we said in Chapter X, are we prepared to borrow the Sadler Commission's remedy of Intermediate Education Board and Colleges. A better remedy seems to be for the Educational Department to elaborate its organisation for the supervision of secondary education and for the University to confine itself to its proper sphere of laying down courses, inspecting and recognising schools (as proposed in our Chapter X, paragraph 112) and

generally keeping in touch with the Department through its School Leaving Examination Board.

180. The nature of the proposed changes in the constitution : Relation of the University with Government.

Of the changes in the constitution of the University which we propose the most important affecting the relation of the University with Government are those by which we hope, first, to secure for the University and the educated public greater freedom to determine the composition of the governing body of the University : and secondly, to vest the power of affiliation and disaffiliation in the University. We recognise that the Government of India and the Government of Bombay have a deep concern in the matters with which the University has to deal, and that, if the immediate responsibility falls upon the local Government, there are also important educational functions which the Government of India must continue to perform and valuable advice and assistance to be sought and obtained from it by the University. The Calcutta University Commission (Chapter 50, Sec. 43—55) emphasized five such functions, that of legislation to bring into existence or revise the powers of a university, the duty of visitation or periodical survey, the duties of co-ordinating the work of universities, of stimulating and organising research, and of assisting recruitment. In its Resolution No. 99 of 27th January 1920, Sec. 13* the Government of India defines in general terms its own conception of its responsibilities to universities but does not determine the action to be adopted in fulfilling them. With that conception we have no quarrel and we trust that the Bombay University may look forward to help from the Government of India in carrying out the costly measures which will be necessary in order to apply suggestions endorsed by the Government of India. But we notice that the Government of India does not endorse the quinquennial visitation which the Calcutta University Commission suggested (Chapter 50, Sec. 45) and that it even mentions (Sec. 36) possible deviations from the visitation procedure. We think that such visitation is not a necessity and that there is no need to include as an officer of the University of Bombay a visitor who is to be the Governor General. A quinquennial visitation would be a costly and a very troublesome interruption of a university's normal course of work. If such a visitation is necessary at all, it should not be more frequent than decennial ; but it seems to us that for the purpose of the Government of India's enquiry all that is necessary is a periodical or special report from the local Government on the progress of University education. We have therefore omitted the Visitor from the list of officers. Nor do our proposals alter the relations of the University and the Government of Bombay except in the manner stated above. We adopt the suggestion of the Government

*" The Government of India can continue to perform an invaluable function by defining the aims of educational policy, by giving assistance to local Governments and to universities, by acting as an impartial arbiter in cases of dispute, by protecting disregarded interests, by supplying organised information regarding local developments, by obtaining the service of scholars from other countries, by co-ordinating the work of various universities and by guarding against needless duplication."

of India (Resolution No. 99 of 27th January 1920, Sec. 36) in emphasizing that the relation of the Chancellor with the University is a personal one. We propose that he sanction or confirm as Chancellor, not as Governor. We do not assign to the Chancellor all the functions that the Calcutta Commission propose (Chapter 50, Sec. 17 foll.) because we do not anticipate so many deadlocks between University bodies as they seem to do. For instance, we do not give to the Chancellor the right of nomination to the Academic Council or any body other than the Senate: and while the Calcutta Commission give to aggrieved colleges, communities or special interests the right of appeal to the Chancellor, we make the Senate the final Court of appeal. Though we curtail his right of nomination, we leave him to nominate 35 out of 150 (see above paragraph 177). We make his assent to statutes and to appointment of the Vice-Chancellor necessary. Such power of final assent is in every constitutional system vested in some detached authority. We include certain members of Government as *ex-officio* members of Senate and Syndicate, though not as many as the Calcutta Commission propose. Our experience has been that high officials seldom attend university meetings and that it is hardly correct to say with the Calcutta Commission that "their judgment upon questions of general university policy which the Court [*i.e.*, the Senate in Bombay] will discuss must have great weight" (Chapter 50, Sec. 10). On the other hand, we should welcome that the Government of Bombay should do what was proposed by the Calcutta Commission (Chapter 50, Sec. 12) and should make a fixed annual allotment to the University for its needs, "attaching such conditions as it may think fit to any part of such grants; and that it should then leave to the authorities concerned the responsibility of making the best use of these funds, requiring only a full annual statement of accounts, audited by the appropriate Government department, which should cover the whole income and expenditure of the University and show clearly what use has been made of the Government grants." We also suggest the adoption of the Calcutta Commission's other proposal in the same paragraph, that all requests from colleges for additional grants should be forwarded to Government only through the Syndicate of the University, which should add its own comments and recommendations. This would enable the University to collate and classify its own needs and those of the colleges connected with it and "Government would then be in a position to take a broad view of all the needs and make a just apportionment of its funds among them."

181. The act of Affiliation and Disaffiliation.

Till the University Act of 1904, the University finally determined the question of affiliating colleges. The Act of 1904 made affiliation the act of Government, the power of the Senate and Syndicate in that behalf being made only recommendatory. This change was made because it was urged that the universities had been lenient in the matter of affiliation with the result that some inefficient and weak colleges had come into existence. It was at the time strenuously contended that this did not apply to the University of Bombay, which, it was claimed had been

very sparing and discriminating in the exercise of its function of affiliation. This was admitted*, but it was considered inexpedient to differentiate the case of Bombay in the general Act. The record of the University of Bombay with regard to the proper grant of affiliation has been maintained. Now that a special Act for Bombay is to be enacted, the previous position should be restored. We are of the view that the power of affiliation, if left finally in the Senate, will be exercised with greater responsibility than under the present system, where the responsibility of the Senate is only one of recommendation and the act of affiliation is that of an outside authority.

182. University nomenclature.

We have deliberately retained the existing names of our University bodies. The new universities have been adopting new names for old bodies until an attempt to compare the constitutions of Indian Universities reduces the enquirer to despair. In the Universities of Lucknow, Benares, Allahabad and Dacca the supreme body is called the Court: in the Punjab, Patna, Madras and Mysore Universities the Senate: at Rangoon the Council. The executive body has now four names throughout India: the academic body is in some places the Academic Council, at Benares and Rangoon the Senate! When such bewildering variety of nomenclature has come into use, it is least confusing for everyone to retain the names familiar in this Presidency.

183. The ultimate Governing body of the University: the Senate.

We have adopted the view of the Calcutta Commission that the existing constitution of the governing university body requires to be reformed, but we do not apply all the remedies suggested by them. For a body of 100, mainly nominated, the Commission proposes (Chapter 37, Sec. 26) a body of between four and five hundred with 150 to 250 *ex-officio* members. Such a body we think would never 'meet' in the true sense, it could only 'mobilise' and that not in the modern military but the literal sense of gather in crowds. We doubt if half its members would ever be present at a single meeting, and if all attended regularly the University would be insolvent. That it would be no true governing body is shown by the Commission's admission that it need meet only once a year, that 50 should constitute a quorum and that all details should be handled by its Committee of Reference. We feel that a Senate so constituted would not be suited or acceptable to this Presidency. Nor have other Universities gone this length. Allahabad, we calculate, has a Senate of about 280: Madras of 210. We have fixed ours at 150 excluding *ex-officio* and donor members and believe that within that number adequate representation for all vital interests can be obtained without dropsical inflation. About details of representation there is of course much room for difference of opinion and we do not claim finality for ours. But we should point out that we have in view the desirability

*Compare the words of Sir Thomas Raleigh quoted in the first paragraph of this chapter.

of the governing body of the University having a preponderance of men of affairs and business over professors and teachers (see below Chapter XIX, paragraph 223). A perusal of the functions we assign to the Senate will show that we intend it to be the real governing and legislating body, but not to be responsible for so many details of administration and regulation as it is at present.

184. The relation of the Senate to other University bodies : the Syndicate and Academic Council.

We accept the view of the Calcutta Commission (Chap. 27, Sec. 84) that a university requires three types of governing bodies and we provide them in :—

(*i*) *The Senate,* the paramount body, representative of the community, whose assent is required for fundamental legislative proposals but not for details of regulations : a body exercising a general supervision and ultimate control over the finances and the management of the University ;

(*ii*) *The Syndicate,* the executive and administrative body " which will give statesmanlike guidance in the accommodation of means to ends and also in the provision of means and will mediate between possible misconceptions of the public and the possibly too restricted outlook of the scholar " (Government of India Resolution No. 99, Sec. 11). This is a small body, entrusted with financial and administrative duties and considerable legislative powers (through its ordinances) but not concerned with purely academic business ;

(*iii*) *The Academic Council,* a body of scholars, mainly university and college teachers, to give authoritative and final direction to teaching.

We also accept the view of the Calcutta Commission (Chapter 37, Sections 12-17) that a more elastic and adaptable system of legislation is required for the University so that it is not necessary for every modification of the Act, and every regulation, whether dealing with fundamental or minor matters, to go through the same slow elaborate process and ultimate reference to Chancellor or Government of Bombay. We propose that the existing Act of 1904 be replaced by a new short Act defining in general terms the powers and constitution but doing little more than enumerate the principal organs of university government and defining their main functions ; leaving the detailed provisions regarding them to be framed by the Senate, consistently with the Act, within a period to be fixed for the purpose. Such *Statutes* when framed by the Senate will have to receive the approval of the Chancellor, and any alterations made in the future would have to receive a similar approval. Further the regulations for the ordinary daily work of the University should be capable of easy alteration, subject to the Act and Statutes : therefore these should be embodied in *Ordinances* to be made by the Syndicate

though, in the case of academical matters, initiated by the Academic Council, and to be subject to the approval of the Senate. Finally, the minor details would be laid down in *Regulations* which, subject to the Act, Statutes and Ordinances, would be made by any university body authorised by Ordinance or Statute to do so. The changes we propose mean a redistribution of the executive and administrative work of the University : the Senate is freed of much details : the Syndicate is freed of academic work that requires expert direction, the teachers are given a body in which they can deal with purely educational matters on purely educational lines, while the administrative dependence of the Academic Council on the Syndicate checks unpractical schemes. We have endeavoured to keep the size of the Academic Council within reasonable bounds. It cannot be very small if it is to be representative and if teachers are to be given in it the theatre of action and influence which they claim for themselves.

185. The University Officers.

We have added to the University's organisation a new office of Rector and a full time Registrar. We have recognised that there is a strong sentiment in favour of the retention of the honorary post of Vice-Chancellor. It is a post that has been occupied by a succession of able and distinguished men who have maintained the dignity and exalted the influence of the University. Though the work of the Vice-Chancellor has now so grown that it demands more than can be asked of an honorary officer, yet an honorary officer selected from those who command most respect for their scholarship, ability, high character and influence is still necessary for the inspiration and determination of University policy and the infusion of lofty aims and vocational enthusiasm in teachers and students. At the same time we think the importance and amount of work in connection with the administration of a university is such as makes it imperative to have a responsible officer who can give his full time to the framing, in practical form, of the University's policy and line of development, pursue vigorously and consistently its application and co-ordinate the working of all parts of the University machinery. We think that such an officer should normally be chosen from distinguished educationists familiar with the University. We have given him the title of Rector because we conceive him as the officer who directs and secures the smooth working of the whole machine. He corresponds not to the the Rector of Scottish Universities (a purely honorary post) or to the Rector of the University of Calcutta but rather to the 'Principal' of the Scottish Universities. But to give him that name would cause confusion with college Principals. Again the Registrar's work occupies the whole time, we may say almost the whole life, of its present incumbent. We cannot trade on that and expect always to obtain such whole-time service for a half-time salary. Other officers proposed by the Calcutta Commission we think unnecessary and we do not propose to add costly machinery, without seeing a real need and a clear return.

186. [c]The constitution proposed by the Committee.

(i) Composition of the University Senate.

(*a*) The total number of the Senate, excluding *ex-officio* members and nominees of donors shall be about 150.

(*b*) *Ex-officio* members:

The Chancellor, Vice-Chancellor, Rector, Registrar, Chief Justice, Minister for Education, Director of Public Instruction, Surgeon General, Director of Agriculture, the Vice-Chancellor of any... University instituted at Poona or elsewhere in the Presidency.

(*c*) Elected members.

(1) Registered graduates of not less than five years' standing, elected by registered graduates, without limitation of standing	4 25
(2) Elected by the following public bodies and associations.	2
(*l*) Public bodies and associations in mofussil centres.	5
(*m*) The Senate of a University at Poona* (if and when created)	2
(*n*) Bombay Medical Union	1
(*o*) Board of Management of the Victoria Jubilee Technical Institute	1
(*p*) Trustees of the Prince of Wales Museum ..	1
(*q*) The Managing Committee of Anjuman-i-Islam	1
(*r*) Gujarat Vernacular Society	1
(*s*) Bombay Natural History Society ..	1
(*t*) Bombay Branch Royal Asiatic Society ..	1
(*u*) Bombay Municipal Corporation ..	2
(*v*) Karachi Chamber of Commerce ..	1
(*w*) Ahmedabad Millowners' Association ..	1
(*x*) Bombay Millowners' Association ..	2
(*y*) Indian Merchants' Chamber ..	2
(*z*) Bombay Chamber of Commerce ..	2
	24
(3) One representative elected by the Municipalities of each Division	4
(4) One representative elected by the District Local Boards of each Division	4
(5) Non-official members of the Bombay Legislative Council.	5
(6) Principals of recognised Arts Colleges elected by the Principals of recognised Arts Colleges ..	8

*When other universities are created, similar representation may be given to them and the representatives of certain local bodies on the Bombay Senate may be transferred to the local university.

(7) Principals of recognised Professional Colleges elected by Principals of recognised Professional Colleges .. 6

(8) Professors and others (excluding Principals and Fellows) on the permanent staff of an affiliated college, to be elected by the members (excluding Fellows) of the permanent teaching staff of affiliated colleges 6

(9) University professors and heads of University Departments elected by themselves 8

(10) Headmasters of recognised High Schools elected by Headmasters of recognised High Schools 7

(11) Headmistresses of recognised High Schools elected by Headmistresses of recognised High Schools 3

(*d*) Co-opted by the Senate 15

(*e*) The Chancellor to have power to nominate 35

Total .. 150

(*f*) Bodies and associations giving a donation of the value of one lakh to the general funds of the University to be allowed during a period of twenty years to nominate one Senator each.

(*g*) Donors to the general funds of the University of money or property to the value of not less than one lakh to be life members.

(*h*) Every Association making a donation of the value of not less than Rs. 25,000 and every individual making a donation of the value of not less than Rs. 10,000, and every association or individual making an annual contribution of the value of not less than Rs. 5,000, to the general funds of the University, shall be entitled to nominate one member to the Senate who shall be a member for five years or as long as the annual contribution continues, as the case may be.

(*ii*) *Powers and Functions of the Senate.*

(*a*) To meet quarterly or when convened by the Vice-Chancellor.

(*b*) To be the supreme governing body of the University and to have power to *review* the acts of Syndicate and Academic Council, to declare its opinion on any University matter and to exercise all powers and perform all duties conferred or imposed on it by or under the Act and to exercise all the powers of the University not otherwise provided for by or under the Act.

(*c*) To make, amend or repeal statutes; to accept, reject or refer back but not amend draft statutes sent up by the Syndicate.

(*d*) To consider and cancel ordinances of the Syndicate and regulations of the Academic Council and other University authorities.

(*e*) To consider and pass resolutions on the annual report, accounts and estimates.
(*f*) To consider the annual financial statement placed before it by the Syndicate and pass it with such modifications as the Senate may think fit.
(*g*) To make provision for instruction and research.
(*h*) To affiliate or disaffiliate colleges on the recommendation of the Syndicate.
(*i*) To institute, maintain and manage colleges and hostels on the recommendation of the Syndicate.
(*j*) To grant and confer degrees.
(*k*) Generally to do all such other acts and things as may be necessary or desirable to further the objects of the University.
(*l*) To elect the Vice-Chancellor, Rector and other office-bearers and authorities as provided in the Act and Statutes.
(*m*) To accept donations and endowments.
(*n*) To consider and decide appeals in cases where such appeal is provided for in the Statutes.
(*o*) The term of office of a member of the Senate shall be five years.
(*p*) Thirty-five members shall constitute a quorum.

(*iii*) *Composition of Syndicate.*

The Vice-Chancellor, the Director of Public Instruction and 15 elected members, of whom five should be Principals and Professors of affiliated colleges and members of the Senate : these five should be elected by the Academic Council : the remaining ten should be elected by the Senate : one-third of the members should retire in rotation each year, but be eligible for re-election : on the first two occasions the five to retire should be chosen by lot : seats to be vacated by death, resignation, absence from three consecutive meetings or ceasing to be a member of the Senate : casual vacancies to be filled as at the original election ; elections to be by ballot and by post.

(*iv*) *Functions and powers of the Syndicate.*

In order to be precise in defining these powers we have in many cases borrowed the actual wording of clauses in the Allahabad or Lucknow University Act.

The Syndicate
(*a*) shall direct the form, custody and use of the Common Seal of the University ;
(*b*) shall subject to the powers conferred by the Act on the Senate, the Vice-Chancellor and Rector, regulate and determine all matters concerning the University in accordance with the Act, the Statutes and the Ordinances ; provided that no action shall be taken by the Syndicate in respect of the fees paid to examiners and the number, qualifications and emoluments of teachers, otherwise than after consideration of the recommendations of the Academic Council ;

(*c*) shall approve regulations laying down courses of study framed by the Academic Council. Such regulations shall be accepted, rejected or returned for reconsideration but not amended by the Syndicate;

(*d*) shall lay before the Local Government annually a full statement of all the requests for financial assistance received from any institution associated with the University, together with its view thereon;

(*e*) shall frame the budget of the University for the consideration of the Senate;

(*f*) shall administer the funds and property of the University;

(*g*) save as otherwise provided by the Act or the Statutes, shall appoint the officers (other than the Chancellor, the Vice-Chancellor and the Rector), teachers and other servants of the University, and shall define their duties and the conditions of their service, and shall provide for the filling of temporary vacancies in their posts;

(*h*) shall have powers to accept, subject to the direction of the Senate, transfer of any movable or immovable property on behalf of the University;

(*i*) shall arrange for and direct the inspection of all colleges, hostels and associated colleges;

(*j*) shall appoint examiners after consideration of the recommendations of the Academic Council;

(*k*) shall publish the results of the university examinations; and

(*l*) shall exercise such other powers and perform such other duties as may be conferred or imposed on it by the Act or the Statutes.

(*v*) *Composition of the Academic Council.*

The Academic Council should consist of 60 members, who need not all be members of the Senate.

(*a*) *Ex-officio*.—The Rector, Deans of Faculties, ten Principals, elected by Principals, ten University Professors or Heads of University Department elected by themselves	25
(*b*) One representative of each subject or group of subjects dealt with by a single Board of Studies, to be elected by the teachers (excluding Fellows of a college) registered in the Registrar's office as teaching members of a recognised college staff	20
(*c*) Elected by Headmasters and Headmistresses of recognised High Schools	5
(*d*) Elected by the Senate from its members not engaged in teaching	5
(*e*) Co-opted by the Academic Council	5
Total ..	60

(vi) Power and functions of the Academic Council.

(1) To propose regulations for laying down courses of study for the approval of the Syndicate. Such regulations shall be accepted, rejected or returned back for reconsideration but not amended by the Syndicate.
(2) To make regulations for the conduct of university examinations.
(3) To propose institution of new university teaching appointments, their duties and emoluments.
(4) To make regulations for the award of university scholarships and prizes.
(5) To recommend to the Syndicate appointment of examiners.
(6) To propose schemes for constituting of Departments, Faculties and Boards of Studies.
(7) To make regulations for prescribing equivalence of examinations.
(8) To control the University Library and appointment of a Library Committee.
(9) To promote research.
(10) To arrange for co-ordination of studies and inter-collegiate lectures by means of a standing Committee of Co-ordination, composed of the Rector, Deans of Faculties, Registrar and six Principals.
(11) Generally to advise the Syndicate on all academic matters.

To meet whenever convened by the Chairman : quorum of 15 : term of office three years.

(vii) The Faculties.

(*a*) There shall be Faculties of Arts (including Commerce), Pure Science, Technology (including Agriculture and Engineering), Law, Medicine, Fine Arts. Under each Faculty shall be included such departments of University and College teaching as the Ordinances prescribe. All members of the Academic Council shall be assigned by order of the Syndicate to one or other of the Faculties : each Faculty shall comprise (1) members of the Academic Council assigned to it : (2) teachers (whether of subjects included in the Faculty or closely related thereto) co-opted by the Faculty : (3) other persons co-opted by the Faculty on account of expert knowledge in a subject assigned to the Faculty : such persons shall not exceed one-fourth of the total membership of the Faculty. Members of the Faculty shall hold office three years. Each Faculty shall elect its own Dean. The total number of a Faculty shall not exceed 30 in Arts and 20 in the other Faculties.

(*b*) The functions of the Faculties shall be, to constitute Boards of Studies in their own Departments, subject to the approval of the Academic Council : subject to the control of the Academic Council to organise and co-ordinate teaching and to regulate conditions for award of degrees and diplomas : and to deal with other matters referred to them by the Academic Council.

(viii) Boards of Studies.

(*a*) Boards of Studies shall be appointed by the Faculties and constituted as at present (*vide* General Regulation 31, page 47 of the current University Calendar), except that History and Economics shall have separate Boards and the Faculty of Science be divided into (*i*) Pure Science, with separate Boards of Physics, Chemistry, Botany, Zoology, Geology, etc., and (*ii*) Technology, with separate Boards of Engineering, Agriculture, Applied Chemistry, Textile Industries. Each of the Faculties of pure Science and Technology shall appoint one member to the Board of Mathematics in the Faculty of Arts. Members shall hold office for three years.

(*b*) The main functions of the Boards of Studies shall be the drawing up of syllabuses of study. Each syllabus for the School Leaving Examination shall be drawn up by a joint Board of three members of the School Leaving Examination Board and two members of the University Board of Studies concerned. Boards of Studies may also recommend to the Academic Council the names of persons suitable for appointment as examiners.

(ix) Miscellaneous University Bodies.

(*a*) *School Leaving Examination Boards.*—(See above Chapter X, paragraphs 112—114).

(*b*) *Board of Students' Welfare.*—(See above Chapter XV, paragraph 169).

(*c*) *Joint Committee of Syndicate and Academic Council,* to manage the Publication Department (See Chapter VIII, paragraph 92 *f*).

(*d*) *University Library Committee* to be appointed by the Syndicate from amongst members of the Academic Council: to consist of 12 members with power to co-opt in addition not more than one-third of their number: to elect their own Chairman: to hold office for three years. Their powers and functions to be those defined in the existing rules (see page 568 of the Calendar): to be responsible to the Academic Council.

(*e*) *Committee to select University Professors, etc.*—See below, 'University officers' sub-paragraph (X) (10) below.

(*f*) *Committee of Co-ordination.*—See above sub-paragraph (VI) 'Powers and Functions of the Academic Council', sub-paragraph 10.

(*g*) *Finance Committee of the Syndicate.*—See above paragraph 186 (IV, *e* and *f*).

(*h*) *Committee of Post-graduate Studies.*—See above Chapter VIII, paragraph 88 (8).

(*i*) *Examinations Board.*—See below paragraph 194.

(*x*) *University Officers.*

(1) *Chancellor*, to be the Governor of Bombay, *ex-officio*, with the following powers:

(*a*) to confirm or refuse, *as Chancellor*, the appointment of the Vice-Chancellor elected by the Senate:

(*b*) to assent, or withhold his assent, *as Chancellor*, to Statutes passed by the Senate*:

(*c*) To nominate the number of members of the Senate stated in the Act.

(*d*) To confirm the award of honorary degrees by the Senate.

The Committee think the Chancellor need not have power to suspend the operation of Ordinances nor appellate power in the case of dispute between Syndicate and Academic Council: such dispute should be referred for decision to the Senate.

(2) *Vice-Chancellor*, to be a part-time honorary officer, elected by ballot by a two-thirds majority of those present at a duly constituted meeting of the Senate, subject to the confirmation of the Chancellor, from among members of the Senate: to hold office for three years but be eligible for re-election: his functions to be:—

(*a*) in the absence of the Chancellor to preside at Convocation and Senate:

(*b*) to convene the Senate and to have power to delegate this power to the Rector:

(*c*) to exercise general supervision over the University and to have power to see that the Act, Statute and Ordinances are observed.

(3) *Rector*, to be a full-time, salaried officer, drawing a salary of Rs. 3,000 per mensem and provided with a rent-free house or flat in the immediate vicinity of the University: to be elected by ballot, on the recommendation of the Syndicate, by a two-thirds majority of those present at a duly constituted meeting of the Senate. The post of Rector, in the opinion of this Committee, should ordinarily be held by a distinguished educationist. He is to hold office for five years and to be eligible for re-appointment: to be the principal executive and academic officer of the University: it is to be his duty to see that the Act, the Statutes and the Ordinances are faithfully observed and he should have all powers necessary for this purpose: to be *ex-officio* member of the Senate: in the absence of Chancellor and Vice-Chancellor to preside at Convocation and Senate: to be *ex-officio* member and chairman of the Syndicate and Academic Council and entitled to be present at and speak at any meeting of any authority or other body of the University but not to vote thereat unless a member of the authority or body concerned: to have power to convene meetings of the Syndicate and Academic Council and to delegate this power to any other officer of the University. In any emergency requiring in his opinion immediate action he is to take such

*Prof. K. T. Shah is of opinion that for the appointment of the Vice-Chancellor and the bringing of Statutes into effect, the sanction of the Chancellor should not be necessary.

action as he deems necessary but to report his action as soon as possible afterwards to the officer or authority who should ordinarily have dealt with the matter. He is to give effect to the orders of the Syndicate regarding the appointment, dismissal and suspension of the officers and teachers of the University. Generally he is to exercise control over the affairs of the University and be responsible for its discipline in accordance with the Act, Statutes and Ordinances.

(4) *Registrar*, to be a full-time officer appointed in the first instance for a term of five years but eligible for re-election for another term of five years, or any shorter period that may be decided: to be elected by the Senate on the recommendation of the Syndicate: to be paid a salary of Rs. 1,000—100—1,500 with free quarters in the immediate vicinity of the University: if reappointed, to draw a fixed salary of Rs. 1,500; to carry out the same duties as at present subject to the approval of the Rector: in the event of a temporary vacancy in the office of Rector the Registrar to have power to carry on the current duties of the Rector till the Syndicate has made the necessary arrangements.

(5) *Assistant Registrar*, to be a full-time officer, on a salary of Rs. 500—25—750 and to be appointed by the Syndicate.

(6) *Secretary of the School-Leaving Examination Board*, to be a full-time officer on a salary of Rs. 750—50—950—50—1,200 and to be appointed by the Board with the approval of the Senate.

(7) *University Librarian*: to be a full-time officer, a graduate, with experience of, and, if possible, training in library administration and ability to advise students and readers in their choice of books: Salary for the present to be fixed at Rs. 350—25—500 (efficiency bar)—50—1,000: to be appointed by the Syndicate on the recommendation of the Academic Council: to be started at any point in the salary scale according to qualifications.

(8) *University Professors, Readers and Assistant Professors*, to be appointed by the Syndicate on the nomination of a Selection Committee consisting of the Vice-Chancellor, Rector, two members elected by the Syndicate, two members elected by the Academic Council and the Dean of the Faculty concerned. For terms of appointment see above, Chapter VIII, paragraph 86.

N.B.—We recommend the institution for all University officers and servants drawing pay over Rs. 50 per mensem a *University Provident Fund*: each officer or servant to contribute at least 6¼ per cent. of his pay and the University to contribute another 6¼ per cent. The fund to be invested and interest credited half yearly to the depositors. Detailed regulations for the Provident Fund may be drawn up by the Syndicate.

CHAPTER XVII.

A.—Education of Women.

187. Differentiation of curriculum : Girls should have the same optionals as boys and some others in addition.

In the evidence placed before us on the education of girls and women, the main issue raised has been whether the curriculum of girls should differ from that of boys. It is possible that the English Board of Education Report on the "Differentiation of curriculum for boys and girls respectively in Secondary Schools" (1923) has been stimulating interest in the matter. It is evident that there is a feeling abroad among some that difference of sex should mean a difference in school studies and that a school curriculum in this country should include certain additional optional subjects of special interest or value to girls. The additional optional subjects suggested are various : domestic science or home arts generally, and specific parts of this, such as cookery, laundry, nursing, care of babies ; hygiene and elementary biology ; music, painting, embroidery, needlework, cutting out, weaving, dyeing ; pedagogy, psychology of children, ethics, religion, Indian philosophy. It is also claimed by some that the vernacular should be the medium of instruction and examination for girls. But the supporters of differentiation appear to have no clear or unanimous idea of what they want or to what stage differentiation should be carried. Some restrict it to schools, others extend it to the University. Some appear to think Mathematics or Science unnecessary for girls and that the fundamentals of culture for girls are not the same as for boys. On the other hand, there is also evidence of a strong feeling that, if girls are to be educated, they must be educated on the same terms as boys : that the more freely they mix with boys in school and the more fully they share boys' work and boys' conditions of study, the more rapidly will they qualify to take their proper share in the national life : that no differentiation that can be interpreted as a concession to feminine weakness is to be accepted : that the best stimulus to feminine education is for women to prove their fitness to be educated by the success with which they compete with boys on equal terms and even surpass them. This rather militant attitude to the question is natural and intelligible but it takes no count of many social, physical and mental phenomena which nowadays are held to count for much. The fact that in this country girls are seldom being educated for a profession or vocation seems to point to the need of some difference in education to correspond with the difference of function. The argument referred to assumes an absence of intellectual and emotional difference between boys and girls, which is not borne out by psychological evidence, and though the bearing of such differences on education is still uncertain, they are phenomena which ought not to be ignored. It also disregards the possibility of subjecting girls to a physical strain which they are unfitted to sustain owing to the greater liability of girls to physical and mental fatigue and to the greater demand on their physical and nervous strength made by the period of adolescence. Nevertheless the

second of the two points of view, namely, that there should be no differentiation, whatever its line of argument, arrives at one conclusion which is also affirmed by the Report on the Differentiation of Curriculum already alluded to (Section 103), *viz.*, "that girls should not be debarred from any opportunities of development open to their brothers, and should be free, if they so desire, to study any subject of the ordinary school routine accepted for boys": but the report adds that it is essential that the strain should be lessened in some way. We too agree that girls should be free to select any of the optional subjects open to boys whether at Matriculation or other University Examinations. The list of optional subjects included in our scheme of University courses seems to us to provide a sufficient choice of subjects for girl undergraduates. With regard to the scope of Secondary Education generally and the subjects in which the School Leaving Examination Board of the University should be prepared to examine, we agree in thinking that subjects like Music, First Aid and the elements of Psychology might be taught to both boys and girls and House Craft, including laundry and cookery (in the form appropriate to the pupils' habit of life), care of children, needlework and cutting out to girls. All these subjects should be tested by examination so far as practical.

188. Boys and girls should have the same compulsory subjects.

The further question arises, whether, if any subjects should form compulsory parts of education, the compulsion should fall on girls equally with boys? We have argued in Chapter X that a sound general culture is the aim of our secondary education, and it is as much our aim for girls as for boys. No differentiation then can be admitted which will impede the school in its task of giving such an education to both. If a knowledge of English, their mother-tongue, Science, History and Geography are essentials in such an education for boys, it is difficult to prove they are not equally essential for girls, though a different branch of science might be preferable for girls. Arithmetic appears equally essential to both. Whether a knowledge of other branches of Mathematics is necessary for girls is more debatable. If Mathematics are made compulsory because of their value as a means of training the reason, and if Mathematics can be shown to be a subject for which the majority of girls have a special ineptitude or distaste, why should not Logic or other systematic exercise of the reason be allowed as an alternative for girls? Such ineptitude, however, has yet to be proved (*vide* Report on Differentiation, Section 91), and consequently a majority of us would not allow girls to substitute at Matriculation another subject for Mathematics. Others of us would do so and would advocate a differentiation between boys and girls in both the subject matter and method of teaching Mathematics, whether in preparation for a University or otherwise. But the feeling of the majority of our Committee is that it is undesirable to make any distinction between boys and girls in respect of the qualifications for Matriculation, whether in subjects or standards.

189. Other differentiation between boys and girls at Matriculation.

The question was raised, partly by a passage in the Report on Differentiation (Section 51) mentioned above, partly by recent discussion in the Senate on Matriculation, whether in view of the greater strain imposed on girls by their greater physical weakness and by the fact that they have to perform domestic duties and learn domestic arts and accomplishments in addition to the usual school subjects, girls may not be allowed to take the Matriculation Examination in two stages (*e.g.*, Arithmetic, History and Geography at the end of the sixth standard), and, if they fail in any, re-appear in those subjects along with the remainder. The proposal was opposed on the grounds of inconvenience of class management and of the impolicy of making concessions to feminine weakness and the Committee divided equally on it. Another proposal made on the same grounds as well as the further ground that girls' physical and mental maturity is later than that of boys, that an age limit should be imposed on girls who should not be allowed to matriculate till they were sixteen years of age, was rejected. The fact of their later maturity in India was denied : and the age limit was objected to for the same social and other reasons as in the case of boys. A further proposal to hold an oral examination for girls at Matriculation was rejected on the ground that the shyness of Indian girls made oral examination an impossibility.

190. A separate University for Women.

We have had the aims and objects of Mr. Karve's Indian University for Women at Hingne Budruk explained to us by its supporters and we have read the reports of its progress. But a majority of the witnesses on this subject hold that a separate university for women is wasteful of money and effort and is likely to lower the standard of higher education for women. They think that co-education is a sounder principle at the University stage. Even those who are inclined to support the existing women's university admit that, if the use of the vernacular as a medium is in some degree admitted in the colleges of the University of Bombay and if provision of special options for women is made, a separate University is totally unnecessary. We are agreed that a separate Women's University is wasteful of effort and money, and that a women's university with the vernacular as its medium is not in the interest of higher education of women in this Presidency—for reasons which appear from what we have already said about the vernacular in universities. Moreover, there is no evidence of any real demand for such a form of education.

191. Separate Colleges for Women.

About 35 of our witnesses are in favour of separate colleges, and 22 against. The arguments for and against are briefly stated by Dr. Bal Krishna (No. 91) and against by the Registrar (No. 57). Some (Nos. 141, 68, 56, 29) say a separate college is particularly necessary in the case of medical studies, where, we are told, co-education is productive of

an undesirable tone in the relation of the men and women students. This, however, is denied by others. Some witnesses say there is more need of a women's college in Poona than Bombay (No. 141). The soundest view in our opinion is that put forward by Miss Bahadurji (No. 46), Dr. Parker (No. 40) and many others that co-education is the most suitable system for university education in this Presidency, and that the special needs of women under graduates can best be supplied by institution of Hostels for women students, under the superintendence of a staff of experienced women, some of whom should themselves be graduates, who should not only look after the material and moral conditions of life in the hostel but also direct and aid the girls' studies and intellectual development generally. The staff would also arrange for the supply of instruction in such purely feminine subjects as could not be dealt with by the colleges. We are convinced that women students require to come under male tuition and to mix with male students in class room and social functions of the college. But particularly in the present state of female society in this country they also need a more intimate knowledge of feminine psychology and a sympathetic but not too indulgent management which only women experienced in the education of girls from 15—20 can effectively give. There is a vast amount of character in the Indian girl which male teachers not only fail to draw out but often are unable or too indifferent or contemptuous to realise. The Committee are, however, aware that there is a large body which favours the other view that separate colleges should be started for women in order to give a stronger impetus to female education. Sir Fazulbhoy Currimbhoy and Mr. Mirza Ali Mohammed Khan specially emphasize this in the case of Mahommedan girls.

B.—Examinations.

192. Appointment of Examiners.

The Committee have received a considerable volume of evidence on the subject of examinations, much of it with reference to a number of details which the Committee think may be left to the Academic Council to decide, when such Council is created. We have recommended (Chapter XVI, paragraph 186, iv.j and vi. 5) that examiners be appointed by the Syndicate, on the recommendation of the Academic Council and we also give power to Boards of Studies to suggest the names of examiners to the Academic Council (See Chapter XVI, paragraph 186, viii). We place the control and management of examinations in the hands of the Academic Council (*vide* Chapter XVI, paragraph 186, vi. 2) from whom all ordinances on this subject must originate (Chapter XVI, paragraph 184). We hope that we shall thereby be able to remove or at least reduce any grounds for complaints about appointing examiners, or neglect of the mofussil, etc. It is a frequent complaint that examiners are both changed too lightly and appointed in too many successive years. It is not possible to lay down rigid rules but we think it sound that where there is a plentiful supply of competent examiners, an examiner should not examine more than three years in succession. We entirely disapprove

of the system adopted at Matriculation of appointing one examiner in English to correct all the 8,000 answers to a single question. Examiners, it must be remembered, are, and ought to be, flesh and blood, and not machines. We approve generally the principle of including external examiners, *i.e.*, that a group of examiners in one subject should usually include both teachers of colleges and those not engaged in teaching the subject or teaching it in colleges outside the Presidency.

193. Valuation of Answer-papers.

The two main difficulties and sources of complaint in regard to this topic are the system of assigning marks and the decision of border line cases. It is complained that candidates' answers are valued both too mechanically and too loosely. In the higher examinations the chief danger is of a mechanical assignment of marks which does not distinguish between fundamental or essential and merely complementary knowledge; does not weigh the value of an answer-paper as a whole in relation to the subject, as well as the value of each answer or each point separately; and does not allow credit for special excellence in certain answers to compensate for deficiency in some others or for failure to answer every question. On the other hand, there is the danger that deficiency in fundamental questions or papers may be condoned on the strength of other answers or papers. With these matters the Calcutta Commission's report dealt in detail (Chapter 17, Sec. 74–5) and we think the attention of the University should be drawn to these paragraphs. We suggest that examiners should be instructed to be on their guard against too mechanical a system of valuation and, specially in higher examinations, to distinguish between essential and merely complementary knowledge and to allow the impression they form of the class and grade of a candidate's answer or answer-paper as a whole to rectify the result of a system of assigning marks for specific details. We approve of condonation of failure being allowed so long as it is granted in some systematic way that takes account of the proportion between the failure in one part and the excellence of the total result, and of the fundamental or subordinate character of the knowledge in which deficiency is proved. Condonation is to be more carefully exercised in a final than an intermediate examination.

194. Control of Examinations.

We think that the examination system of a university is so important a piece of machinery that it requires more expert supervision than it gets. The duty of actually conducting the examinations has been admirably managed by the Registrar and his office. What is wanted is rather control over paper-setting, standards, valuation and an organisation for annual testing and revision of the system and its results. This cannot be done by either the Syndicate or the Academic Council. The suggestion of the Calcutta Commission (Chapter 40, Sec. 3) is worth trial. A special Examinations Board may be created composed of the Rector, some experienced examiners and teachers and a skilled

statistician. Their duties would not be executive but merely advisory. They would study and set out results and supply material for checking vagaries of standard and improving methods and organisation and would also publish question papers through the University Publication Department. In addition to this review of examinations on the mechanical and statistical side each Board of Studies should review the question papers with which it is concerned and report to the Academic Council.

195. Paper-setting.

The following suggestions are derived from various witnesses. It should be a frequent but not invariable practice to assign the work of setting question papers and that of valuing answers to different groups of men, though in such cases the two groups must be in close touch with each other. Such a method helps to eliminate the inequalities of chance. In setting papers excessive importance should not be assigned to prescribed text books and book work. Alternative questions are desirable, subject to the alternatives being really equivalent, and not each concerned with essential knowledge: similarly compulsory questions are permissible, if it is clearly stated that a pass in such questions is necessary. Above all ingenuity in devising new questions that cannot be merely answered from memory but call for reasonable knowledge and intelligence is the main desideratum in an examiner. Questions too must be kept in some relation to the actual life and experience of the examinee: and should include some that offer special opportunity to the candidate who has read widely. Lastly, the practice of permitting the use of text books at examinations might be extended, but will require numerous precautions to prevent abuse.

196. Standards of Examination.

Examiners have still to discover absolute standards for gauging intelligence and knowledge, and there can be no fixed or precise standard for an examination. However exactly and concretely the standard be defined, it remains a relative thing. Percentages of passing are no more than loose definitions of relations between attempt or intention and achievement, realities and ideals. But they have their importance. It is something that the student is told how near he must approximate to completeness, *e.g.*, that he must achieve at least half what it is anticipated the clever studious candidate could accomplish within the conditions of the test. This last is what most universities suggest to the student as the minimum—fifty per cent. of "the possible" and it is a useful idea to have implanted in the mind of youth. Yet it must be admitted that even if we accept fifty per cent. as the standard we are still dependent on what is the examiner's anticipation or estimate of the possible. We have indeed to trust that common sense and the advice of others will guide. The authorities must issue reasonable instructions and syllabuses, the examiners must interpret and apply them reasonably. We do not say that the authorities and examiners of this University

have been unreasonable; but we do think they require to hold out to students a loftier ideal of achievement, a higher standard of what constitutes and is recognised for efficiency. We want the University in setting its standard to think more of what is the standard of the plain, reasonable man, the standard of achievement which the manufacturer, the business and the professional man sets for himself and his employees. He does not demand impossibilities of immature youth. But he knows when a youth has accomplished the task set him and he complains that the university apparently does not. A university cannot afford to acquire a reputation for begetting inefficiency, for it will win no support or endowment from the public for such work. It is because we think it of the utmost importance that the young men, on whom the university sets the seal of its degrees, shall satisfy the needs of the public whom they have to serve, that we urge the raising of university standards of achievement wherever possible. We accept the standard of the new School Leaving Board as an improvement. We urge the raising of the Matriculation standard to that of the First Year: and we call on the University to re-organise and annually to review its examination machinery to secure that examiners and examinees have both done their tasks reasonably well.

197. Centres of examination.

A strong appeal is made by Dr. Bal Krishna (No. 91) for the creation of more examination centres, especially for the Matriculation. His argument that the cost can be met by having question papers printed at one centre is open to the objection that such method of printing involves greater danger of leakage during their distribution. But with the increase of numbers of examinees, the use of more centres is becoming inevitable, at least for Matriculation. Though we regret that it is becoming less possible to make the candidates appreciate the relationship to the University which the examination implies by bringing them for their examination to the University centre itself, we agree to the necessity of multiplying centres. We trust, however, that the University will be able to improve the machinery of its examination so as to continue to forestall the danger of leakage with the same success as in the past.

C.—University Employment Bureau.

198. Employment Bureau.

Opinion on the utility of a University Employment Bureau is divided. Those who advocate it are vague in their conception of its method of working. The Registrar and Assistant Registrar both point out that such an institution has been tried and failed and is not likely to succeed if tried again. In very few cases did the Bureau succeed in obtaining appointments for applicants. Two difficulties stood in the way. Many of the applicants were not in earnest or had not determined what they wanted. A greater difficulty was for the University to get and keep in touch with employers. As some witnesses say, a Bureau can do little till

employers are convinced that graduates are worth employing and that the opinion of the Bureau as to the character and capacity of the applicants registered is reliable. But employers complain that a Bureau merely sends the man with eulogistic certificates to which employers can attach little value. It is suggested by Mr. Petit that the one way in which a Bureau could help employers would be that, on application from an employer, the Bureau should send a candidate with a letter from the Principal of a College or Rector of the University explicitly recommending him for that post and explaining the qualities that fit him for it. On the whole we think a Bureau might help graduates a little and we recommend that the experiment be tried again. To secure consideration for those registered it will be necessary to have in charge of the Bureau some officer whose recommendation will carry weight. The Rector would be the most appropriate officer. He would probably need a small committee of principals: the Registrar may be Secretary. It will be necessary for success that the Rector get into touch with employers and excite their interest in the Bureau.

D.—The study of Oriental Literature and Learning.

199. A Faculty of Oriental Learning.

Three points in connection with Oriental studies have been brought to our notice: a proposal to institute a faculty of Oriental Learning; some deficiencies in the methods of study of classical oriental languages; and the position and importance of the traditional indigenous method of studying Sanskrit. The proposal to institute a Faculty of Oriental Learning is fathered by one of our members, Mr. Mirza Ali Mahomed Khan, who has explained to us the purpose of his proposal which now is before the Senate. The Senate has resolved that there should be a Faculty of Oriental Learning and has asked the Syndicate to draw up a scheme of studies under that Faculty. A copy of Mr. Mirza's proposal is printed in Appendix (No. 17). Briefly the proposal is that after the first year of university study, a student might branch off to a course including three oriental languages (two 'classical' and a vernacular) taught through the medium of the vernacular or of one of the classical languages or through both, and leading to a B.O.L. degree in three years and an M.O.L. in two more. The object of this proposal is to popularize and deepen the study of the literature and learning of the East by relieving the Student of the burden of English and other Western studies as soon as the student has acquired the elements of a general culture and the command of English sufficient for him to utilise the oriental learning embodied in English books; and giving him a continuous three years in which to go direct to the oriental sources of Eastern history, philosophy, Science, etc. Mr. Mirza has principally in view the learning of Persian and Arabic literatures: but he also includes that of Sanskrit, Avesta Pehlavi, Hebrew and their allies. He claims that only so can the decay of Arabic and Persian studies in this Presidency be checked.

200. Objections to the Scheme for a Faculty of Oriental Learning.

There has been much discussion and opposition to Mr. Mirza' s proposal and the Committee have found themselves unable wholly to approve his scheme.

(*i*) The idea of constituting a special " Oriental Faculty " for encouraging the higher study of Indian and Islamic Literature, history, philosophy and science, implies that these subjects are not suitable for the main courses of the Bombay University, can find no proper place in them and can be promoted only by assigning them to a special Faculty isolated from all others. The Bombay University, on the other hand, has from a very early date followed the policy of insisting on the study of a classical language as obligatory on all students who seek to enter it ; and has in all its higher examinations assigned to Indian classics a position of corresponding importance. Underlying this policy is the principle that every student in the University and every graduate should have a good grounding in the classical literature of his country or community, and that such grounding in conjunction with modern studies, is essential to the type of culture which it is the purpose of this University to promote, thus ensuring in its alumni a harmonious blending of both the two great streams—Asiatic and European—of world culture. No Indian can be called ' educated ' in the true sense of the word unless he combines in himself a thorough grasp of modern thought with a sound appreciation of the leading ideas of his own ancient learning and culture. Consistently with this traditional policy of the Bombay Univerity, we have in our proposals given a prominent place to the study of the vernaculars, by making them media of instruction and examination up to the Matriculation ; assigned to the classical languages of India with their vernaculars a distinctive place in the B.A. and the M.A. curricula ; and provided for the establishment of University Chairs in such of them as are most studied in India. It may be possible to do more in the same direction in the future and the University should be prepared to do more whenever a favourable opportunity occurs. But the main principle should not be departed from of maintaining and promoting an organic relation in the University courses of study between the ancient culture of India and the modern culture of Europe and America. The side-tracking of " Oriental Studies " to a separate Faculty, judging from the experience of other Indian Universities where such a plan has been tried, will fail to achieve the very object which we wish to promote. We may observe in passing, that the phrase " Oriental Studies, " while being appropriate in Western Universities as applied to Sanskrit, Arabic or Persian, is a solecism when applied in an Indian University to the classical learning of India and Asia.

(*ii*) Superficially it resembles the proposal of the Calcutta Commission with reference to a course of Islamic studies at the Dacca University leading up to a B.I.S. (Bachelor of Islamic Studies) and M.I.S. degrees and a similar course for Sanskritic studies. (See Chapter XXXIII, Sec. 98 foll. and XLII, section 17.) Actually it is radically different. The Sadler Commission scheme was for an arts degree in Islamic studies " conferred only on students who have received an adequate basis of

Western education and have pursued their Islamic studies with a knowledge of the critical methods employed by Western scholars." It was the object of the Dacca scheme "to produce ripe Arabic scholars who would possess in addition a thorough knowledge of English" and the Intermediate was the point of departure to it and the Pass B.A. the standard of English required. With such a scheme as that at Dacca we have every sympathy. But Mr. Mirza's scheme is neither wholly oriental nor sufficiently western. The foundation of western culture is insufficient to begin with and the abandonment of English and recourse to the vernacular and Persian as the medium of instruction could only mean that the study would become wholly uncritical. In most cases the philosophy, history, science or mathematics contained in Arabic, Persian and Sanskrit literature must be subjected to the examination of a critical spirit, if it is to yield the best results. So far as the language and literature only are concerned, it is not necessary to create a new faculty to provide for their study in the groups proposed and if the Intermediate examination were made the starting point, we should not object to the creation of a special course and special B.A. and M.A. degrees in Oriental languages. Mr. Jayakar, while agreeing with the above view, is of opinion that the medium of instruction and examination in the courses of Oriental Studies subsequent to the Intermediate examination can, without disadvantage, be a Vernacular or the classical language itself; and that the courses for the Intermediate examination, in the case of students proposing to take Oriental Studies for the B.A., may be so remodelled as to lead up to the proper study of Oriental subjects by them at the B.A.

201. Deficiencies in the study of classical oriental languages.

The remaining two points are developed by the Rev. R. Zimmermann, S.J., in his note printed in Appendix No. 18.

(*i*) The classical Oriental languages, he says, are studied and taught too much from the literary and not enough from the philological point of view. This criticism, as we have already pointed out (Chapter XI, paragraph 122), is endorsed by other witnesses. Language studies in the University of Bombay have of late years been undeniably weak on the philological side. Until towards the end of the nineteenth century there was a scanty succession of Sanskrit scholars who had been trained in European methods of study, Bühler, Kielhorn, Sir R. Bhandarkar, Peterson. Only a few Indians have recently received training in Europe. Philology, comparative grammar, phonetics have formed no part of the training which the University itself gives. The Wilson Philological lectures have been barren of results. Nor has the study of English fared any better. Any suggestion of the study of English earlier than Chaucer has been, till last year, regarded with aversion. We have fallen behind the Calcutta and the Madras Universities which both make provision for the study and teaching of comparative philology. The limited scheme of Post-graduate studies which we have proposed (Chapter VIII) does not mention a professor of this subject, but it is our hope that several of the University language professors will have been trained in Europe in it

and will be competent to initiate the post-graduate students into it. If men so trained are not forthcoming, it will be necessary for the University to send selected men to Europe for special training. We have included provision for that in our estimate for a university at Poona.

(*ii*) If language studies are insufficiently linguistic, literature studies, says Professor Zimmermann and we agree, are insufficiently *real*, too restricted to the art of the spoken or the graces of the written word. Literature, to be studied with profit, must be studied as the expression of the thought, character and life of a people, for only then does literature fall into line, march in time and deploy in unison with other branches of study, history, archæology, sociology. The nineteenth century realised that with Greek and Latin. Only in the twentieth are we realising it of Persian, Sanskrit, English. The remedy here is to be found mainly in an alternation of methods of study, co-operation and co-ordination of studies and utilisation of the apparatus and materials stored in libraries and museums.

(*iii*) Professor Zimmermann's suggestions in the matter of examination coincide with several we have already made. The use of oral examination for honours and post-graduate students and testing by thesis should be considered.

(*iv*) The problem of linking the pundits and students trained in the traditional lore and methods of Oriental learning with the University is a difficult one. They are even now a necessity for advanced students and research. They include among them men of undoubted ability. Yet they are likely to disappear and their learning die out in the neglect of their knowledge which modern and western methods of university study and the general commercialism and utilitarianism of modern life are creating. The Sadler Commission was decided in its opinion (Chapter XLII, Sec. 4) that a university, constituted as it was proposed Calcutta should be, "could not possibly undertake the control and direction of Sanskritic learning as cultivated on strictly indigenous and orthodox lines. The management of studies so pursued must, for obvious reasons, be placed substantially in the hands of the great scholars, who devote their lives to their successful pursuit; but however eminent their attainments, they cannot appreciate the requirements of western learning. However acute their intelligence and profound their learning, the presence of such scholars on the academic bodies of the University would be likely to lead to friction, disputes and endless controversies. Interference with their work by scholars saturated with western learning and ideals would be deeply resented by them, just as their intervention in discussion of university studies on the western pattern would be resented by votaries of the latter". Professor Zimmermann appears to be of the same opinion. The Calcutta Commission's remedy is (*Ibid.*) to provide a bridge whereby the students of each method can pass over to the methods of the other. Obviously it is impossible for the pundit to take up western methods under his present training. For such persons the Calcutta Commission proposed to institute a course leading to a special diploma or degree, which should involve study of modern critical methods, modern research and a competent knowledge of English. For this training an

institution of University rank would be required in which would meet together the pundit, ambitious of acquaintance with western methods, and the university graduate whose zeal leads him to seek aid from the traditional lore. This seems a good scheme on paper, and for Calcutta, where there has been for many years a Sanskrit College. It is open to doubt whether it would succeed in Bombay and whether there are on this side any pundits ambitious of acquaintance with western methods. Professor Zimmermann suggests an Institute which will devote itself entirely to the traditional matter and methods, *e.g.*, in the subjects of Sanskrit Grammar and Mimamsa. The purpose of such institute would be to keep up the succession and traditional training of Sanskrit pundits, to provide a few posts (in the Institute) of utility and dignity for the best of the older generation, and to create for Western India a centre where scholars of Sanskritic lore of every kind and school could gather and assist each other. An endowment would be necessary to finance such an institute.

Note J.

By Mr. Mirza Ali Mohammed Khan on a Faculty of Oriental Learning.

"The Senate having resolved to institute the Faculty of Oriental learning it is no longer necessary for me to write a detailed note on the subject. The points on which the majority of the Committee rely were fully discussed at meetings of the Senate. They were answered by me then and the Senate resolved to institute the Faculty by a clear majority.

I do not think it is necessary for me to go over the whole ground again here. The B.A. Degree connotes a certain amount of culture. At the University Examinations as at present constituted English is the only language through which such culture is conveyed. In the examinations of the Oriental Faculty, culture will be conveyed through Eastern tongues. The Bombay University is an Eastern University and I think it is its first duty to preserve the languages, culture and learning of the East. The University has now been in existence for nearly 70 years and the methods employed have failed to foster, encourage and preserve the Islamic languages, civilization and culture. The study of Arabic is dead; that of Persian is fast dying and the University having recently decided that a Vernacular may be taken as a subject of study instead of a classical language at the School Leaving Examination, the study of the classical languages of the East will be seriously affected. In History too the Persian sources remain utterly neglected. From 1894 to 1913 the study of the Mogul period of Indian History was a compulsory subject at the B.A. Examination. The study of that period has entirely disappeared since then, so that to-day hardly 5 per cent. of the students who take their B.A. degree need know anything of the great Muslim dynasties of India. It seemed to me that the formation of a Faculty of Oriental Learning was absolutely necessary to give the necessary impetus to the preservation and study of the important languages current in the East. I brought my proposal before the Syndicate and the Senate; and a Committee of the Faculty of Arts which was composed of Members

of Boards of Studies in the different Eastern languages including Father Zimmermann assisted me in elaborating my scheme which appears in Appendix 17 to this report. The objections raised against the institution of this Faculty are in my view utterly unsound.

The main objection is that the methods of teaching in this Faculty will be uncritical. I do not know where the objectors get this premiss from. I have refuted it more than once in the Senate. It is forgotten that the Faculty of Oriental Learning will be a part of the Senate and subject to its control. There is no reason whatever why methods of study in this Faculty should not be as efficient as in the Faculty of Arts. Under the Committee's recommendations the University will be responsible for the teaching of the M. O. L. course."

MIRZA ALI MOHAMMED KHAN.

I agree with the above note.

FAZULBHOY CURRIMBHOY.

Note K.

By Mr. Mirza Ali Mohammed Khan on Women's Colleges.

"I disagree with the recommendation of the Committee against Women's Colleges. If the recommendation of the Committee has any meaning it must go the length of requiring that no women's college shall be affiliated to this University however well-equipped or well-staffed the College may be. This will make it impossible for any advanced higher education for Muslim girls. No question of co-education can arise so far as the Muslims are concerned. I think it is wrong to call upon the Muslim Community to give up Pardah if they desire to get the benefit of higher education. Apart from this question I do not agree with the proposition that 'Co-education is the most suitable system for University education in this Presidency'. The foundation of Women's Colleges will give a great impetus to higher education even amongst Hindoo women students."

MIRZA ALI MOHAMMED KHAN.

I agree with the above note.

FAZULBHOY CURRIMBHOY.

CHAPTER XVIII.

FINANCE.

202. A rough estimate of the cost of the proposals is necessary—

Our proposals include changes and developments that will necessarily involve heavy expenditure; in particular, for example, the concentration of the Bombay Colleges, the institution of a new university at Poona, a great expansion of university post-graduate teaching and research, and the institution of a Technological College. In the most favourable circumstances these developments must extend over a number of years, but from the beginning they will demand of the University a largely increased expenditure. To estimate that expenditure precisely is not possible, for much of it depends on circumstances and details that must be determined by Government itself and the University in consultation with expert committees. Nevertheless, it appears incumbent on us to suggest to Government and the public an idea of the financial aspect of these schemes in order, in the first place, that it may be easier to decide the relative emphasis to be laid on the different parts of the scheme; and secondly that it may be realised how totally inadequate are the present resources of the University to supply the necessary means for carrying out the developments we think are desirable and necessary. That more than anything else will bring home to our readers how great is the need that Government and the wealthier members of the community contribute generously to the development of the University. Our estimates have been prepared after consultation with the Executive Engineer of the Presidency, with reference to land and building values and cost of construction. But neither he nor we claim that our figures, especially in the matter of sites and buildings, are more than rough estimates. Our figures are not intended to represent either an ultimate ideal or a bare minimum. They are an attempt to define the cost of the several proposals, especially the proposals for staff and salaries, on a reasonable estimate of the amount and quality of the work to be done.

203. Rough Estimate of expenditure involved in the Committee's actual proposals—

Heads and Items.	Non-recurring.	Recurring.
I. Concentration of the University round its present site (Chapter IV).	Rs.	Rs.
1. Purchase of site and building of Watson's Hotel ..	9,00,000	
2. Erection of building for Sydenham College of Commerce on Watson's site	5,00,000	
3. University Students' Union with a flat for University Rector on site between University Library and University North Wing	3,00,000	
4. Conversion of Sailors' Home to University purposes	1,00,000	

Heads and Items.		Non-recurring.	Recurring.
I. Concentration of the University round its present site (Chapter IV)—contd.		Rs.	Rs.
5. Conversion of the Secretariat to the use of Wilson or St. Xavier's College		1,00,000	
6. Conversion of Record Office to the use of Elphinstone College and Government Law School		50,000	
7. Site on Reclamation for Mahomedan College		1,50,000	
8. Site on Reclamation for St. Xavier's or Wilson College		1,50,000	
9. Building for Mahomedan College		10,00,000	
10. Building for Wilson or St. Xavier's College		10,00,000	
11. Site for drill hall (Cotton Green)		1,00,000	
12. Building for drill hall		50,000	
13. Sites on Cotton Green for following Hostels		5,60,000	
14. Four-storeyed buildings on Cotton Green for following Hostels :—			
(*i*) Wilson College	400 Students.	4,50,000	
(*ii*) St. Xavier's College	400 ,,	4,50,000	
(*iii*) Mahomedan ,,	400 ,,	4,50,000	
(*iv*) Sydenham ,,	100 ,,	1,50,000	
(*v*) Royal Institute of Science	100 ,,	1,50,000	
(*vi*) University Post-graduates	100 ,,	1,50,000	
(*vii*) Women's Hostel	100 ,,	2,00,000	
Total		69,60,000	
Deduct for St. Xavier's site	14 lakhs.		
Deduct for St. Xavier's buildings	7 ,,		
Deduct for Wilson College site	7 ,,		
Deduct for Wilson College building	7 ,,		
Deduct for Sydenham College site and building	8 ,,		
Deduct for Mahomedan College building fund	17* ,,		
	60 lakhs.	60,00,000	
Total		9,60,000	
II. Establishment of a University at Poona (see Chapter VI).			
(i) Buildings.			
1. University site		2,00,000	
2. University Offices and Lecture rooms		5,00,000	
3. University Library building and Furniture		5,00,000	
4. Professors' bungalows (ten)		3,00,000	
5. Hostel for Post-graduates (50)		1,00,000	
6. Initial equipment of Library with books		1,50,000	
Total		17,50,000	

*This figure includes the nine lakhs of the endowment fund and the estimated additional cost of the buildings at Andheri.

Heads and Items.		Non-recurring.	Recurring.
II. Establishment of a University at Poona (see chapter VI)—contd.		Rs.	Rs.
(ii) Establishment.			
1. Examination charges		....	90,000
2. Printing and advertisement		....	20,000
3. Fellows' Travelling Allowance		....	20,000
4. Stationery		....	8,000
5. Examination Mandap		....	5,000
6. Postage		....	1,500
7. Repairs to buildings		....	5,000
8. Electric lighting		....	1,000
9. Insurance for buildings		....	3,000
10. Library grant for books		....	15,000
11. Miscellaneous		....	5,000
Total ..		....	1,73,500
(iii) University staff.			
Registrar, Assistant Registrar and establishment ..		....	30,000
10 Full-time Professors at Rs. 1,000 p.m. (average)		....	1,20,000
10 Assistants at Rs. 500 p.m. (average)		....	60,000
10 Lecturers at Rs. 150 p.m.		....	18,000
Librarian and clerks		....	5,500
2 Fellowships for foreign study at Rs. 500 p.m. each.		....	12,000
Total ..		....	2,45,500
(iv) Provident Fund		....	11,650
(v) Post-graduate Teaching Department.			
10 Scholarships @ Rs. 100 p.m.		....	12,000
10 ,, @ Rs. 75 p.m.		....	9,000
Publications		....	2,000
Grants for Research		....	2,000
Total ..		....	25,000
Grand Total, recurring ..		....	4,55,650
Deduct fee receipts as follows :—	Rs.		
Matriculation fees	22,000		
First Year College Examination fees ..	4,590		
University examination fees ..	94,760		
Registration and Degree fees ..	5,000		
Post-graduate students' fees ..	10,000		
	1,36,350	....	1,36,350
Net recurring expenditure ..		....	3,19,350
Total non-recurring expenditure ..		17,50,000	

Heads and Items.	Non-recurring.	Recurring.
III. College of Technology (Chapter XIII).	Rs.	Rs.
A. Technological College at Matunga—		
Site, buildings and apparatus for three departments	45,00,000	
Maintenance and Staff per annum	..	3,50,000
B. Technological Department of Applied Chemistry attached to the Royal Institute of Science—		
Erection of buildings, fitting of existing rooms and apparatus	5,00,000	
Maintenance and staff per annum	..	1,00,000
IV. Post-graduate teaching in Arts in the University of Bombay (Chapter VIII)—Additional Cost.		
Furnishing Class rooms, Professors' Study rooms, etc.	10,000	
(*i*) *Teaching staff.*		
8 Professors (excluding Economics and Sociology Department) at Rs. 1,000 per mensem (average)	..	96,800
9 Assistant Professors at Rs. 500 per mensem (average) 12 Lecturers at Rs. 150 per mensem..	..	54,000
2 Professors, 1 Assistant and 2 Lecturers for the Law and Commerce Departments (average) ..	..	21,600
(*ii*) 12 scholarships in various departments at Rs. 50 per mensem	..	33,600
(*iii*) Special Departmental Libraries	..	7,200
(*iv*) Peons (6), clerks (2 at Rs. 60 per mensem) ..	..	5,000
(*v*) Lighting	..	3,440
(*vi*) Stationery and Miscellaneous	..	500
(*vii*) Six Research Fellowships at Rs. 150 per mensem	..	2,500
(*viii*) Educational Department's Demonstration staff; 6 teachers at Rs. 250 per mensem ..	..	10,800
Hire of Building at Rs. 500 per mensem ..	..	18,000
Contingencies at Rs. 300 per mensem ..	..	60,000
	..	36,000
Total ..	..	3,49,440
Deduct Fees from 120 M.A. students at Rs. 150 per annum .. .. .. Rs. 18,000		
Deduct Fees from Demonstration School of 100 children at Rs. 5 per mensem .. 6,000		
24,000	..	24,000
Net recurring expenditure ..	..	3,25,440
V. University Officers (Chapter XVI).		
(*a*) Rector at Rs. 3,000 per mensem	..	36,000
Rector's rent-free flat at Rs. 300 per mensem..	..	3,600

Heads and Items.		Non-recurring.	Recurring.
V. University Officers (Chapter XVI)—contd.		Rs.	Rs.
(*b*) Registrar at Rs. 1,250 (average)		..	15,000
Registrar's rent-free flat at Rs. 300 per mensem		..	3,600
(*c*) Assistant Registrar at Rs. 625 (average) ..		..	7,500
(*d*) Librarian at Rs. 425 (average)		..	5,100
			70,800
Travelling Allowance for Rector		..	1,200
			72,000
Deduct amount of present salaries of—	Rs.		
Registrar at Rs. 400	4,800		
Assistant Registrar at Rs. 500 ..	6,000		
Librarian at Rs. 350	4,200		
	15,000	..	15,000
Net Total ..		..	57,000
VI. Provident Fund : 6¼ per cent. contribution by the University on salaries of teaching and administrative staff (Chapter XVI fine).			
Economics and Sociology Departments, 6¼ per cent. on Rs. 39,500		..	2,469
Other Departments, 6¼ per cent. on Rs. 1,14,600, salaries of 8 Professors and 9 Assistants ..		..	7,162
Registrar and Assistant Registrar, 6¼ per cent. on Rs. 22,500		..	1,406
Establishment of Registrar and Librarian, 6¼ per cent. on Rs. 38,000		..	2,375
Demonstration School Staff, 6¼ per cent. on Rs. 18,000		..	1,125
Total ..		..	14,557
VII. Additional Travelling Allowance Expenditure.			
For 10 meetings of the Academic Council in the year .		..	10,000
For meetings of other new Boards, *e.g.*, Board of Students' Welfare and touring of the Director of Physical Training		..	5,000
Total ..		..	15,000
VIII. University Publication Department [Chapter VIII, para. 92 (f)].			
Additional expenditure (in 1924 it was Rs. 4,250) to cover University Journal, publication of theses, etc.		..	6,000
Total ..		..	6,000
IX. Encouragement of Research [Chapter VIII, para. 92 (b) and (c)].			
For Fellowships see IV (*vii*) above : for scholarships see IV (*ii*) above :			
(*i*) Grants-in-aid of research in addition to the existing Rs. 3,500.		..	6,500
(*ii*) Contributions in support of Research Institution			
Total ..		..	6,500

Heads and Items.	Non-recurring.	Recurring.
X. Development of University Library [Chapter VIII, para. 92 (e)].	Rs.	Rs.
Increase in the annual grant for purchase of books ..	..	8,000
A lump sum for purchase of complete sets of valuable journals, books and oriental pictures	15,000	
Total ..	15,000	8,000
XI. Organising of Learning [Chapter VIII, para. 92 (d)].		
Public Lectures (say 12 a year at Rs. 100 each) ..	..	1,200
Total ..	..	1,200
XII. Relations with Public (Chapter IX, para. 97).		
Grant for University Congresses to be held in Bombay or elsewhere, *e.g.*, Science, History, Economics, Oriental Languages	..	1,000
Total ..	..	1,000
XIII. University Extension and Adult Education Courses (Chapter IX, para. 103).		
Contribution to Extension courses	..	5,000
Contribution to Tutorial classes	..	5,000
(These sums to be supplied to University by Government and Bombay and Poona Municipalities).		
Total ..	..	10,000
XIV. Medical Education (Chapter XIV-C).		
Institute Chairs of Pharmacology (including Ayurveda or Unani systems), Bacteriology, Tropical Disease, etc., for research in connection with institutions like Parel Laboratory, Dr. Masina's Hospital, Adams Wylie Hospital, etc., say, 4 Chairs at Rs. 1,500 p.m. (1,500×4×12)	..	72,000
Institute a University Department of Dentistry, say, one Professor and one Assistant at Rs. 800 and Rs. 350 (minima), say, 1,500×12 ..	..	18,000
Total ..	..	90,000
XV. School Leaving Examination Board [Chapter X, para. 112 and XVI, para. 186 (X, (6)].		
Full-time Secretary's salary Rs. 1,000 p.m. (average)	..	12,000
Total ..	..	12,000

Heads and Items.	Non-recurring.	Recurring.
XVI. Faculty of Fine Arts (Chapter XIV-D).	Rs.	Rs.
University Chairs of—		
(*i*) Indian Music at Rs. 1,000 p. m. (average) ..	..	12,000
(*ii*) European Music at Rs. 1,000 p. m. (average) ..	..	12,000
(*iii*) Indian Painting and Sculpture at Rs. 1,000 (average)	..	12,000
(*iv*) Indian Architecture and Sculpture at Rs. 1,000 (average)	..	12,000
Total ..	..	48,000
XVII. Housing and Welfare of Students (Chapter XV).		
(*i*) Director of Physical Training salary at Rs. 500 p. m.	..	6,000
(*ii*) Medical Assistant to Director of Physical Training at Rs. 200 p.m.	..	2,400
(*iii*) Physical Training Expert at Rs. 350 p.m. ..	..	4,200
(*iv*) Office Expenses at Rs. 100	..	1,200
Total ..	..	13,800
XVIII. Employment Bureau (Chapter XVII-C).		
At Rs. 300 p.m.	..	3,600
Total ..	..	3,600
Summary.		
I Concentration of University	9,60,000	..
II University at Poona	17,50,000	3,19,350
III College of Technology:		
A Site and Buildings at Matunga ..	45,00,000	..
B Buildings and fittings at Royal Institute of Science	5,00,000	..
A Maintenance and Staff of College at Matunga	..	3,50,000
B Maintenance and Staff of Royal Institute of Science	..	1,00,000
IV Post-graduate Arts Teaching, Bombay University:		
Class Rooms and Furniture	10,000	..
Teaching staff, Establishment, etc. ..	..	3,25,440
V University officers	..	57,000
VI Provident Fund at 6¼ per cent.	..	14,537
VII Travelling Allowances	..	15,000
VIII Publication Department	..	6,000
IX Encouragement of Research	..	6,500
X University Library	15,000	8,000
XI Organisation of Learning	..	1,200
XII Relation with Public	..	1,000
XIII University Extension and Adult Education	..	10,000
XIV Medical Education	..	90,000
XV School Leaving Examination Board ..	..	12,000
XVI Fine Arts	..	48,000
XVII Housing and Welfare of Students ..	..	13,800
XVIII Employment Bureau	..	3,600
Grand Total ..	77,35,000	13,81,427

204. Additional income from fees.

In view of the heavy expenditure involved in any reform of the University on a large scale, witnesses were asked by us to suggest new sources of University revenue. Many proposed an increase of existing fees or additional fees. The proposal to increase University examination fees was rejected by us because such fees were raised all round in 1921 and an additional revenue of Rs. 75,000 a year so gained. A further enhancement might exclude deserving students of moderate means. A levy on all affiliated colleges and High Schools was suggested. In 1921, the levy of a fee of Rs. 300 per college was sanctioned by the Senate, but a year later, rescinded on a protest from certain colleges. In 1924, it was proposed to raise the fee for registration of a High School from Rs. 10 to Rs. 100 and the annual registration fee from Rs. 10 to Rs. 25. The Senate, however, has fixed the registration fee at Rs. 25 and the annual fee at Rs. 25. We, however, do not consider Rs. 100 too high a fee for affiliation of a High School. Other suggestions are a compulsory registration fee on all graduates of Rs. 20 : a compulsory enrolment fee of Rs. 10 on admission : a post-graduate tuition fee of Rs. 75 per term. This last we have already included in our estimate. The possible additions to revenue from these and similar proposals is shown in the following table :—

	Rs.	Rs.
1. Levy on affiliated colleges	300×25	7,500
2. Levy on Recognised Hospitals	300×8	2,400
3. Affiliation of High Schools	100×5	500
4. Annual Recognition fee of High Schools ..	25×250	6,250
5. Compulsory Registration of graduates ..	20×1,400	28,000
6. Admission of undergraduates to University ..	10×2,000	20,000
7. Post-graduate tuition fees	150×120	18,000
Grand Total ..	....	82,650

These fees, therefore, while falling lightly on individuals, would mean a considerable addition to the University's annual income and are worth considering. They represent the income on a capital of fifteen lakhs. In the view of the Committee the sixth proposal for an admission fee of Rs. 10 will impose hardship on students at a critical stage of their career and we do not recommend it.

205. Donations and Endowments.

Having exhausted its own resources the University must appeal to the generosity of the public, to Municipalities and to Government. In Chapter IX we have said that before it can hope for such generosity it must convince the public first that University work and aims are in direct touch with needs of the community ; and secondly that the University recognises that the co-ordination of practical business efficiency with intellectual enlightenment in a university is necessary to the

community's progress and that it welcomes the co-operation and advice that can be derived from the practical sense of business men. The endowments which the University needs now are not so much scholarships and prizes for individual students, but provision of the machinery of teaching, chiefly human machinery in Professors, their assistants, and administrative agents and organisers; but also the machinery represented by apparatus and buildings. It is not students that the University lacks but teaching power, the expansion of its aims and scope, the strengthening of its means, the improvement of its expertness in teaching. We have indicated above the special needs of the University and their estimated cost. We believe there is sympathy and money for the University in Bombay once the University shows itself in earnest to realise what the public needs and to supply it. In return for what it may receive the University can do little directly for individual benefactors. The giving to so noble a cause, the promotion of work on which the political and social future of the country depends, must be its own reward. But by the inclusion of donors in its governing body, the University will recognise its debt and associate its benefactors with itself.

206. Contributions from Municipalities and Public Bodies.

We hope that the Municipal Corporation of Bombay and other important public bodies will be willing to recognise the desirability of establishing a close relationship of mutual assistance between themselves and the University. As we have pointed out in Chapter IX, we believe the University can lend material help to the Municipal Corporation of Bombay in solving the problems of the education of a great city community, not only by organizing a system of education for adult members of the community but also by setting its scientists and experts to investigate the special problems of cities, whether educational, sanitary, social, or political. The University on its side will welcome representatives of the Municipality on its governing body and co-operation of every kind. We venture to hope that in particular the Municipal Corporation of Bombay will recognise that work organised on such co-operative lines is educational work in the most genuine sense and belongs properly to the sphere of each; and that it will make some annual contribution to enable the University to expand its operations in this direction. We invite attention to the examples of grants to universities from corporations and local authorities in Great Britain, and particularly to the generous support given by the Corporations of Manchester and Liverpool to their Universities,

207. Government Grants.

Ultimately, it appears clear that the University must depend largely for the means to expand its work, improve its organisation and heighten its efficiency on grants by the State. At present the University of Bombay receives from the Government of India an annual grant of Rs. 10,000 for travelling allowance for Fellows. From the Government of India also the University has, since 1912-13, received recurring grants of Rs. 45,000 and Rs. 12,000 (for the School of Sociology); it

also received a non-recurring grant from the Government of India of 5 lakhs which was utilised on the new university buildings. The total annual grant received by the University from the Government of India is thus Rs. 67,000 (see Current calendar pages 868-9). From the Government of Bombay no direct grant is received. We recognise that Government contributes indirectly to University studies through the grants-in-aid it gives to affiliated colleges and by its maintenance of ten affiliated colleges. But we submit that the University must now receive direct aid in carrying out the expansion of the teaching work which is expected of it. The total expenditure of the University for the current year, 1924-25, is estimated at Rs. 3,17,400 and the University raises 3½ lakhs of income from its own resources, exclusive of the Government of India grants and interest on securities. The University, therefore, has not failed to provide the necessary funds for its work *on its present scale*, and has maintained its solvency even at the cost of laying heavier burdens on its students. But it is quite impossible for the University to expand its work on its present income. We have seen above (paragraph 204) what additional sources of fees it might tap. That the University has been able to pay its way so far is due to the fact that it has undertaken very little teaching work even in post-graduate studies. The University cannot expect to pay its way if it becomes a teaching university. That involves a numerous and highly paid staff, with very few pupils to each, and expensive apparatus. It cannot expect to organise extension courses and adult education out of the fees of undergraduates, still less out of the fees of working men. It cannot expect to provide buildings for laboratories and scientific apparatus out of fees. It cannot expect to provide for the physical training and health and the sports and social amenities of its alumni out of fees. If it were to attempt to make such provision out of fees, it would have to become a commercialised machine aiming at recruiting as many students for its examinations as possible, extorting from them the maximum fee it would pay to demand and pushing through as large a number as it could. It would be better not to attempt further expansion than to attempt it on the basis of the present revenues of the University.

208. Grants to other universities.

It has been the ancient tradition of India that the State recognised the support of education in all its grades as a public obligation, irrespective of any contributions from private sources. The payment of Parliamentary grants to universities and University Colleges has been in practice in Great Britain, since 1889. Even so far back as that year the annual grant to English universities amounted to £15,000 and to Scotch £42,000. The total grant rose in 1923-24 to £1,169,000 for Great Britain only (*Universities Year Book* 1924, pages 9-10). In that year Government met the financial difficulties of Oxford and Cambridge by raising the grants of each from £30,000 to £60,000 specifying as the special objects of the increase, pensions, salaries, libraries, extension of extra mural work, and women's colleges. (*Ibid*, pages 56 and 198.) Of Indian Universities, Dacca received from Government in 1923-24

five lakhs, Allahabad 6,66,750, Madras 2,38,000. In the Madras University Act of 1923 it is laid down (Chapter IX, Section 44) that the Local Government shall contribute annually towards the University Fund "(*a*) a sum equal to the amount of contribution by the Local Government in the financial year prior to the coming into force of this Act, towards the recurring expenditure of the University; and (*b*) a sum, on such conditions as the Local Government may impose, towards the salary, if any, of the Vice-Chancellor, the development of laboratory, library, museums and workshops and the salaries of such teachers of the University as are appointed for higher research and advancement and dissemination of knowledge in particular branches of learning".

209. The Recurring grant from the Government of Bombay suggested by the Committee.

In view, therefore, of the need of expansion of the University's work, of the impossibility of enlarging the University's revenue to any great extent and of the considerable grants given by other local Governments to their universities, we recommend that any new University Act to be framed for this University contain a clause similar to section 44, in the Madras University Act of 1923 providing for grants to the University from Government and thus securing the same by some statutory obligation. We suggest that the grant to this University should be five lakhs per annum and that amount that be a fixed grant which the University shall use and account for in the manner proposed by the Calcutta University Commission (Chapter 50, Section 12) and alluded to by us above in Chapter XVI, paragraph 180 fin. The total recurring additional expenditure is shown on page 183 above to be a little over Rs. 13¾, lakhs. Deducting from this the sum of Rs. 3,19,350 recurring for the Poona University, the amount required by the Bombay University to carry out the contemplated expansion is approximately Rs. 10,62,077. But not all this additional expenditure would be involved from the beginning and the more important projects could be initiated first, *e.g.*, the most important of the post-graduate teaching departments and the Technological College and Department of Applied Chemistry at the Royal Institute of Science. If Government gave the grant suggested, some at least of the proposals could be initiated at once.

210. Non-recurring grants.

The total non-recurring expenditure involved in our proposals is shown on page 183 as Rs. 77,35,000. Of this sum Rs. 17,50,000 is for Poona University, leaving approximately 60 lakhs to be found for Bombay. If Government would provide one-half of this (it would not be all required in one year) it may reasonably be expected that an appeal to the public to provide the balance would result in the required sum being ultimately forthcoming.

211. A University loan as an alternative.

An alternative is that the State should raise a loan (the State bearing the charges for interest and sinking fund) to meet the non-recurring expenditure and to provide a capital fund which will ensure an income sufficient to meet the recurring expenditure. Such a loan should be spread over forty years, because succeeding generations will benefit by the expenditure. With the Calcutta University Commission this alternative found more favour than any other method. They point out (Chapter 51, Section 17) that in the case of Bengal: "The raising of a loan for this special purpose would direct public attention both in Bengal and elsewhere, to the importance attached by the Government and by public opinion to the improvement of education. And the provision at one blow of the capital required for this extensive operation, all the parts of which should be undertaken without delay, would allow the new undertaking to be carried out upon a well-considered and systematic plan, without the hesitations, delays and other interruptions incidental to a piecemeal policy".

CHAPTER XIX.

A SUMMARY STATEMENT OF THE POLICY UNDERLYING THE SEVERAL RECOMMENDATIONS OF THE COMMITTEE.

212. Purpose of this Summary.

The following summary does not mention all that is recommended in the body of the report. The concrete recommendations are fully summarized in Chapter XX. We here aim merely at a brief statement of the general lines of development underlying the recommendations. The Committee's reasons for approving any recommendation must be sought in the body of the report.

213. The aim of University Education (Chapter III).

The aim of University Education in this presidency must still be a liberal culture, and a due balance of humanistic and scientific studies, a reconciliation and synthesis of western and oriental outlook and philosophies. Though research, the pursuit of discovery, must play an increasingly large part in the work of the University, it cannot as yet be the *dominating* function of the University. The conditions of this Presidency are such that the University must be still responsible for laying a substantial foundation for post-graduate research in the solidly acquired and fully comprehended knowledge of its undergraduates. The University has still to educate the youth of the country and this duty cannot be lost sight of in the eagerness to discover new riches, whether material or intellectual. Nor can this Presidency turn its back on western science and European arts. The development of India's intellectual and material resources cannot at present be the sole aim of the University. There are no national or geographical divisions in the sphere of the intellect and no university can afford to neglect the stimulus of an intimate study of foreign experience, culture and civilisation.

214. Additional universities and new types of University for the greater diffusion of higher education and development of local culture (Chapters V and VI).

In the eleventh paragraph of our second Chapter we pointed out that one effect of the Calcutta Commission's Report was to direct attention to the new types of university that had grown up in Great Britain and to suggest the advisability of considering the suitability of such types for India. The University of Bombay has been an affiliating and examining university for the whole Presidency. But we think it is clear that with expansion and diffusion of higher education, a reorganisation of the economy of the University is becoming necessary. In the particular circumstances of the Presidency we think it necessary to retain the affiliating system and Bombay as the main centre. But we think that other centres of university education will become necessary : and though the same affiliating system may serve best for such centres at

the start, the University should be prepared to see started, in suitable conditions and with adequate endowments, universities of other types such as the unitary residential University. Such centres capable of development into universities must be limited, on grounds of efficiency, economy, co-operation and concentration of aim, and so far as possible institutions in territory assigned to a university should be concentrated at the centre. But the principle of concentration must not exclude that of diffusing culture throughout the Presidency. A single college even if not ripe for development into a university, acts as a stimulus to culture, gathering round it many sources of intellectual activity, promoting discussion and exciting enquiry into the principles, theory and working of all that happens in daily life. In particular these additional universities or single colleges may be expected to become the agencies through which the customs and culture, literature and language, characterising a particular area will be recorded, analysed, and related to the culture of the same area or other areas, in the past and the present.

215. A teaching University for post-graduate studies. (Chapters IV, VII, VIII).

The powers given to the University by the Act of 1904, of developing the teaching function of the University require to be used to a much greater extent. The beginning of such development during the last dozen years we think should be carried further on the same lines, the University assuming responsibility for all post-graduate teaching and the encouragement of research but being careful to associate suitable members of the staffs of affiliated colleges with such work and to keep the University staff in touch with the under-graduate work in the colleges. For the present and until the University is provided with science laboratories, such work must be limited to arts and some professional courses. To facilitate this as well as the co-ordination of the teaching of B.A. courses in colleges, a concentration of colleges in a University quarter round about the University buildings is desirable. In the mofussil, until new universities or university colleges are instituted, we expect the university of Bombay to organise and assist post-graduate work through local committees. To begin with this might be feasible only at Poona.

216. Promotion of research (Chapter VIII).

Scientific research usually requires laboratories elaborately equipped. At present the University does not possess these, and, as the Royal Institute of Science is specially equipped, and some colleges have laboratories fairly equipped, for scientific research, such research work must for the present be done at those institutions and the University must adopt other less direct methods of promoting research. Among the most important of these is the encouragement of methods of teaching and study that train men in the habits of observation and investigation, analysis and inference. It should be the business of some University body to mark out and suggest to teachers and students fruitful lines

of investigation, and to keep in such close touch with industry and commerce as to be aware of the practical difficulties of industry and commerce, the solution of which needs the scientist's help. And the University should be willing and gradually equipped to undertake investigation of such special problems by means of some such system of industrial Fellowships as we describe in Chapter VIII, paragraph 92. In the same chapter we suggest a number of other methods for the encouragement of research.

217. Better representation of the community by means of elections: Closer relations with the public, especially leaders of Commerce and Industry (Chapters IX & XVI).

The sketch in Chapter II of the University's constitutional development shows that it was originally intended to secure by nomination a governing body representative of the public that was interested and cultured in western learning. In course of time it was complained that the Senate had grown into an unwieldy body not satisfactorily representative of the teaching element of the community and including too large a proportion of men indifferent to the University's work. The Act of 1904 cut down the Senate to somewhat too small a number for it to be adequately representative and since eighty per cent. of the number were nominees, a large majority of the Senate was constituted from one point of view only. We are unanimous in thinking that if the University is to become a truly representative body and to keep in close touch with the public whose intellectual interests it serves, the elective principle must be extended to a majority of the Senate. But we desire to retain the principle of nomination for 25 per cent. of the Senate, in order to secure representation of minorities and the inclusion of individuals necessary for their expert knowledge. Not only, however, must the elective principle be thus extended, but also provision must be made to obtain representation of the right elements of the public and of suitable public or semi-public institutions and associations which stand for the higher interests of the community. By this means the University must get on its Senate and other bodies, administrative and academic, all those who can and desire to serve the interests of education and science. It is not, however, enough to elect such men to the Senate or other bodies. They must be kept and interested there by the perception that the University's interests are not mere pedantic scholarship or mechancial coining of graduates stamped with the University seal but to supply the needs of public life in all the changing and multiple forms they assume: and they must thus be induced to assist the University to expand and intensify its efforts to cover the whole life of the community. We would have the University proclaim to the world that its aim is not merely culture for the classes but equally the education of the masses to the enjoyment of a more real citizenship, and to the development of the industrial and commercial resources of the country by the aid of science. Such proclamation must be proved in action and the promotion of research and education of the adult uncultivated population of the city should be the first proofs. This widening and popularisation of its aims

will necessarily involve closer relationship with other learned bodies and associations and other universities. Such co-operation between agencies of learning and culture we regard as a most important part of university policy, contributing to that division and economy of effort and expenditure which are imperatively demanded by the greatness of the field to be worked and the costliness of the agents and apparatus to be employed.

218. Widening of the Scope of University work. Technology (Chapter XIII) : The Fine Arts : Teaching (Chapter XIV).

As Chremes in the play of the Roman Terence said, "I am a man : there's naught which touches man that is not my concern ", so the Corporate University, following out the policy of the last paragraph will proclaim that it is prepared to include in its scope all that helps to better man's nature, environment and life. The University's range must embrace the arts and crafts of and science of the West, the history, philosophy and faith of the East and bring them into due relation. There can in these days be no restriction of a university's courses except such as are imposed by the needs of the community and limitation of means. The existing faculties must expand to include what the community needs. Science may divide itself into Pure and Applied and each of these may include their various sub-divisions. Thus Technology and Applied Chemistry would be brought within the University's range and the charge refuted that the University's teaching is too theoretic and literary, too neglectful of practical training, the handling of the concrete and the development and application of India's material resources. Similarly our conception of "humane " studies needs to be widened to include the Fine Arts, and more particularly Architecture, Music, Drawing, Painting and Sculpture. Taste in the Arts has deteriorated in India and even those who practice them seldom get the opportunity of studying them on their cultural side. Training in these arts on their practical side may in some cases be left in professional hands. But the University can do much to raise the level of their practice by supplying facilities and inducements to study their principles, history, and aesthetic aspects. It can further help to create a taste for good art and beauty and harmony in environment and life by offering popular courses of lectures on the Fine Arts from University Professors and those who have made a study of their principles and history. Another professional study, insufficiently developed, is the science and practice of Teaching. We suggest that attention may be drawn to the value, cultural and practical, of this subject by its inclusion in the B. A. curriculum : and that the University open a Department for instruction, experimentation and investigation of the special problems of education in India in relation to Indian circumstances and psychology. Apart from the valuable light that might be thrown thereby on the science of education, this should react on the methods of teaching employed in schools and colleges. It must be the aim of the University by every possible means to raise the efficiency of teaching in the schools which supply its alumni and the

colleges it recognises. We need to train our students in the habit of working for themselves and relying less on being spoon-fed by lecturers. We have made various proposals to this end, chiefly directed to the expansion of the work of the Secondary Training College on behalf of aided High Schools and co-operation of the University with the work of the Training College.

219. Inspection and Control of University Institutions (Chapter XV, Paragraphs 167-168).

The retention of the affiliating system must be accompanied by a more effective control by the University of affiliated institutions. This must not mean interference with the liberty of schools and colleges to develop their own methods, pursue their own special ends and frame their own ideals. We wish the University's institutions to preserve their own individuality and to accumulate a long tradition of noble aims worthily pursued which may serve as inspiration to staff and pupils alike. But the University must recognise its responsibility for the maintenance of ideals, standards and regulations which it has framed for the elevation of the community as a whole and must see that these are not subordinated to the interests of individuals, institutions or localities, above all, to interests of non-educational character. The reconciliation of the particular aims of individual institutions and the purposes of the University is often a delicate matter. The selection of persons entrusted with the task of inspection requires care. Some outside advice would be valuable both as impartial and supplying material for comparison with other universities. We have suggested that these inspections must be made thorough and cover all sides of college life, particularly the conditions of student's residence. With regard to High Schools we hope the inspection of schools will be made more complete under the new Board, particularly outside British territory and that the Board will be stricter in regard to the size of classes, provision of apparatus and qualification of staff.

220. Residence and Physical Training (Chapter XV).

We wish particularly to call attention to the importance of the physical conditions of student life. This is a matter that has been too much neglected in the past even though the Act of 1904 imposed responsibility on the University in the matter. We do not advise that residence in Hostels be made compulsory, as we think that would be a hardship, financially and in other ways, but we do strongly urge that the conditions of residence, in the case of students living apart from their families whether in college or private hostels, and in private lodgings be made a matter of close scrutiny by both University and College authorities, and a system of licensing lodgings be adopted. Similarly, we advise that physical training, whether in the form of regulated exercises or supervised games, be enforced on all who are not medically unfit. Compulsory military training is approved by a majority of us. We have suggested a special Board and a special officer to look after these matters.

221. Women's education (Chapter XVII).

We think it desirable to retain the principle of co-education hitherto adopted: and to provide for the special needs and instruction of women students in Hostels conducted under the supervision of women graduates. We further provide a wide range of optional subjects including, in the case of the Matriculation, a few subjects intended for girls only.

222. Examinations; Standards (Chapter XVII-B); Curricula (Chapters X, XI, XII).

We think the policy of late years pursued by the University of conducting only two examination tests of student's progress, an intermediate and final, should be adhered to except for those going to professional colleges. We wish the University to keep the conduct and results of examination under closer supervision and suggest a special machinery for the purpose: and we advise the examiners to be instructed to be on their guard against merely mechanical systems of valuing answer papers. While recognising that standards of examination cannot be absolutely fixed, we think the University must aim at a higher standard of efficiency in its candidates; in particular that the general level of attainment can be so altered that what is now expected at the end of the second University year should be demanded at the end of the first, and the level of the first year demanded at Matriculation. On the vexed question of the medium of instruction we think that, so long as there is one University only for Bombay, the University should retain English as the only suitable medium for instruction and examination in most University studies inasmuch as these are intended to introduce the student to western ideas, culture, science, and methods of criticism. In regard to new universities the majority think that there too English should be the medium. But Messrs. Jayakar, Natarajan and Shah think that each university should be perfectly free to choose for itself. We allow the vernaculars to be the medium of instruction in High Schools and, at the option of the candidate, the medium of examination in certain papers of the School Leaving Examination. We suggest a two years' course terminating in an Intermediate Examination, but also at the end of the first year offering opportunity of departure to certain professional studies after passing a University First Year Examination. We distinguish 'Pass' (or 'General' or 'Ordinary') and 'Honours' final courses not as inferior and superior but as 'General' or 'Ordinary' and specialised and we suggest a 'General' or 'Ordinary' course of English Language and Literature and three other subjects selected from a long list of optionals. The 'Honours' courses we do not change save to add other optionals and to substitute for compulsory English Literature, compulsory practical English and questions on every day knowledge. We have readjusted the primary and secondary school courses so as to allow five years to the former and to the latter a three-year junior and two-year senior course or ten years in all: and out of the two years so saved we have utilised one to give more time for the study of important secondary subjects.

223. Government of the University vested in men of affairs and business (Chapter XVI, Paragraphs 183 and 186).

In making our recommendations with reference to the constitution of the University, we have kept in view the fact that an essential condition of the success of our University, having regard to its peculiar features, is that the government of the University should be vested not in a body composed mainly of professors and teachers, but in a body on which men of affairs and business are strongly represented. We have given to professors and teachers adequate control over purely academic matters and have given them the power of initiating measures of that character, as that is their proper domain. Their suggestions would be submitted to the final approval and sanction of a body on which men of affairs and business have a proper share of representation. This has been the guiding principle of the Bombay University for several years and has been on various occasions referred to prominently in the utterances of the officers of the University.*

*To illustrate this we cannot do better than quote the remarks of Sir Chimanlal Setalvad, the Vice-Chancellor, who, in his Convocation address for the year 1917, observed as follows :—

" The second essential condition of success is that the effective control in the government of the University should be vested not in professors and teachers, but in the hands of men of affairs and business, men who, being themselves products of this University, take an interest and pride in its further progress and development. When the University of London was established, the supreme governing body was modelled largely on the type of the constitution of Oxford and Cambridge, and the control came therefore to be vested in teachers and graduates. The recent Royal Commission on the University of London came to the deliberate conclusion that this was a mistake. In their Report, Lord Haldane and his colleagues, after going exhaustively through the question of the government of the University, observes : ' The supreme governing body or court must, in our opinion, be of different constitution from the present Senate which is modelled largely on the type of the constitution of the older Universities. These Universities are not dependent upon public funds for their maintenance, and their history makes their government by teachers and graduates reasonable, or at least explains it. The City University is in an altogether different case, and we agree with the Report A of the Academic Council in the belief that the modern City University cannot flourish if the population it mainly serves is indifferent to its welfare '. The Report of the Academic Council, to which they make reference, said : ' London will not regard the University of London as an integral part of the City until the University is willing to entrust its supreme guidance to a body composed mainly of citizens '. With regard also to the executive body corresponding to our Syndicate, the Commission emphatically express the view that it ' should not as to any large part consist of teachers ' and that ' the teachers who have seats upon it should not be so elected as to represent particular studies or particular institutions, but merely to insure a mutual understanding between the men of affairs and the men of learning '. They further enunciate that the Executive body should be so constituted as to be able to work out a carefully considered policy for the maintenance and development of University teaching. They observe that ' Experience has shown that a body made up of representatives of a number of different interests is incapable of formulating a united plan of action 'and they therefore recommend that all the members of the Executive body should ' as far as possible, be appointed for their personal qualifications as men of business—knowledge and administrative capacity. ' They say that the teachers should not determine the educational policy of the University, though that policy should be determined in the light of the expert advice which the teachers are peculiarly fitted to give. They suggest therefore the formation of the Academic Council consisting of members elected by the professors from among their own body. The duties of the Academic Council, the Commissioners lay down, should be purely advisory, and it should be so constituted that the Executive body, as well as the supreme governing body, should always have before it the opinion of the University Professorate expressed through its appointed representatives. By wise forethought, those who were reponsible for the Universities in this country avoided the mistake that was committed in the case of the London University and which the last Royal Commission deprecates, of vesting the

supreme government in a body composed mainly of teachers, but instead, in the words of Sir Bartle Frere "drew to the Senate all the independent thought and educated ability' available. And this is the real secret of the great hold the Universities in this country have taken on the imagination of the people, and of the enthusiasm with which endowments have flowed in from time to time."

224. The Constitution (Chapters X, paragraph 112, and XVI).

The important alteration in the relations of University and Government which we have proposed is that the University and the public should have the right to determine the composition of some 75 per cent. of the governing body of the University. We propose to enlarge the Senate from 100 to 150 to make it more representative of the community and to make this body responsible for fundamental legislation and general supervision and control: but we think details of an administrative or academic character should be formulated in ordinances and regulations issuing from the Syndicate and a new body, the Academic Council. By this means we propose to relieve the Syndicate of a great deal of business which it has neither time nor expert knowledge to manage. We retain an honorary Vice-Chancellor but propose two full-time salaried administrative officers, a Rector and a Registrar. We do not adopt the suggestion of the Calcutta University Commission's Report for a Board of Intermediate and Secondary Education but rely on the new University School Leaving Examination Board to raise materially the entrance qualification of the University by more carefully conducted and stricter examination, by improvement of its syllabus and by a stricter inspection and supervision of the condition and working of the High Schools. Thus we hope to remove the main defects of the existing constitution, a large but unrepresentative governing body with excessive powers of detailed administration, an executive overburdened with work, the absence of a body of teachers to manage purely academic business, the want of special University machinery for regulating the relations of the University to secondary education, the want of full-time officers to superintend the numerous details of administration and supervision.

CHAPTER XX.

SUMMARY OF RECOMMENDATIONS.

CHAPTER III.

Paragraph 39.—The need for limitation of the admissions to colleges and insistence on some proportion between the numbers of pupils and the number of teaching staff is a point requiring careful attention.

CHAPTER IV.

Paragraph 47.—The Committee recommends *a concentration of the University round its present site* by the acquisition of various buildings and land in the vicinity.

Paragraph 49.—*Details of the Concentration scheme:*

(*i*) The University to acquire the buildings between itself and the Royal Institute of Science.

(*ii*) Government to transfer to University purposes the *Sailors' Home.*

(*iii*) Government to transfer to the University any *portion of Museum site* not required for Museum or other educational purpose.

(*iv*) The *Oval Maidan* be reserved as University sports ground.

(*v*) The *Secretariat,* when vacated by Government, to be converted into a college.

(*vi*) The Government Record Office, when vacated by Government, to be divided between Elphinstone College and Government Law School.

(*vii*) Watson's Hotel to be acquired for the *Sydenham College.*

(*viii*) Sites be reserved on the Co-operage or Reclamation, within one mile of the University, for the *Mahomedan College* and *Wilson or St. Xavier's.*

(*ix*) On the *Cotton Green, Colaba, hostels* be erected for Wilson, St. Xavier's, Sydenham Colleges, Post-graduate students, women students, Royal Institute of Science, and Mahomedan College.

(*x*) *Drill Hall* be erected on Colaba Cotton Green for the University Training Corps.

(*xi*) *The Army and Navy Stores* Buildings and *Sassoon Mechanics Institute* be reserved for University purposes.

CHAPTER V.

Paragraph 57.—Ultimately *additional universities* will be necessary.

Paragraph 58.—There should be a proper and substantial financial provision before a new university is set on foot.

Paragraph 59.—*Four new universities* may be created in Maharashtra, Gujarat, Karnatak and Sind, when conditions at their centres are ripe.

Paragraph 60.—There is no evidence of a demand for a new university at Dharwar: when there is sufficient evidence of a demand for new universities at Ahmedabad and Karachi, and financial support, the matter should be considered.

CHAPTER VI.

Paragraph 61.—Conditions are ripe for setting up some form of *University for the Maharashtra area* at Poona.

Paragraph 64.—The Committee is unable to adopt the scheme for a unitary teaching and residential university proposed to them.

Paragraph 67.—A university combining constituent and affiliated colleges is also thought undesirable for Maharashtra.

Paragraph 68.—*An affiliating university recommended for Maharashtra* because that would constitute a natural development of the parent University, would relieve Bombay of a large share of the responsibility of higher education, would be representative of a homogeneous section of the Presidency, etc.

Paragraph 71.—*The medium of instruction and examination* in the new Poona University should be English.

The *Agricultural and Engineering colleges* to remain affiliated to Bombay.

The *Law College at Poona* to be affiliated to Poona University.

The *Medical School at Poona* to be developed into a fully equipped college and then to be affiliated to the new university.

The *Deccan College* to preserve its individuality and be affiliated to the new university.

The *territorial limits* of the new university to comprise the districts of East and West Khandesh, Nasik, Ahmednagar, Sholapur, Satara, Poona and Ratnagiri and the Indian States of Kolhapur, Sangli, Mudhol, Miraj, Akalkot, Jamkhandi, Savantvadi.

Transfer of students between Bombay and Poona universities to be only allowed at clear cut stages of the student's academic career.

It would be profitable to both universities to carry on regular exchange of professors and teachers.

Mutual agreement and adjustment between Bombay and Poona Universities to prevent *unnecessary overlapping* of post-graduate and research work.

It is not desirable to restrict the *opening of new colleges* to particular centres, in the case of Bombay University or any other.

Paragraphs 72-73.—In the estimate of the Committee, the new Poona University, if it does not undertake Science, would require Rs. 17,50,000 for non-recurring expenses and would have to provide an annual income of Rs. 3,19,300: and, if it does undertake Science, Rs. 27,50,000 non-recurring, and Rs. 3,79,300 or so recurring. The financial provision

necessary for the institution at Poona of a university working on such a scale would be fifty lakhs. But the Committee suggests that the new university might be started if a capital sum of ten lakhs and an annual expenditure of 2½ lakhs are provided for.

Paragraph 74.—Government should give a grant to the new University of not less than one lakh per annum.

CHAPTER VII.

Paragraphs 78 and 79.—The University of Bombay cannot become a purely unitary university, or even a unitary university for the island of Bombay.

Paragraph 81.—Co-ordination of the B.A. classes should be undertaken by the University. For the purpose of effecting this, the University should call on all colleges to apply to it for a new affiliation.

Paragraph 82.—The University should undertake only post-graduate instruction and research.

Paragraph 83.—The University must *provide for adult education.* (See also chapter IX, paragraph 103.)

CHAPTER VIII.

Paragraph 86.—University Professors and their Assistants to be appointed by the Syndicate on the nomination of a Selection Committee, on a five years' contract.

Special contracts and special rates might be necessary for professors selected from abroad. All University officers to subscribe 6¼ per cent. of their salary to the University Provident Fund, the University also contributing 6¼ per cent.

Paragraph 88.—Scheme of post-graduate instruction :—

(1) University to provide Post-graduate teaching for the degrees of M.A., M.T., M.Com. and LL.M.

(2) Post-graduate teaching in Bombay with reference to the above courses only by the University.

(3) Post-graduate teaching in Bombay with reference to the M.Sc. degree at institutions affiliated for the purpose. Such institutions to include Royal Institute of Science, which should be affiliated to the University.

(4) The University may recognise, as a centre of University post-graduate teaching for the courses mentioned in (1) above, an institution or group of institutions at a place outside Bombay.

(5) All candidates for the M.A., M.Com., LL.M. and M.T. degrees to have gone through under supervision courses either in Bombay or at one of the recognised mofussil centres.

(6) A fee of Rs. 75 per term compulsory. Candidates for the M.Sc. to be certified to have worked under the direction of a recognised teacher.

(7) Staff for post-graduate teaching in Bombay to consist of—

(*a*) (i) Full-time Professors on Rs. 800—50—1,000—50—1,250 per mensem.

(ii) Full-time Assistant Professors and Readers on Rs. 300—50—500—50—750.

(*b*) teachers in colleges on Rs. 150 per mensem or Rs. 1,000 for 12 lectures and 6 hours' individual attention to students.

(*c*) Persons to deal with special subjects and for an agreed remuneration.

(8)—(11) Various Committees of Post-graduate instruction to be appointed.

(12) Courses of study for post-graduate degrees to be drawn up by the University Boards of Studies.

(13) Bombay University to arrange for post-graduate teaching at mofussil centres through mofussil committees.

(14) Eighteen Professors, 11 Assistants or Readers, 12 Lecturers to be appointed.

CHAPTER VIII.

Paragraph 89.—Only those who have graduated with Honours to be admissible to Masters' courses. For M.A. and M.Sc. degrees candidates to study the same subject as that selected for their "principal" subject for the B.A. (Hon.) or B.Sc.

M.A. and M.Sc. degrees to be awarded by (1) examination, or (2) an examination combined with a thesis, or (3) research. The method of thesis should be used wherever practicable.

Paragraph 90.—Doctorate degrees to be instituted; and

Paragraph 91.—To be awarded not less than two years after an M.A., or a corresponding degree, on an approved thesis.

(1) Doctor of Literature (D.Lit.);

(2) Doctor of Philosophy (Ph.D.);

(3) Doctor of Science (D.Sc.);

(4) Doctor of Law (D.L.).

Paragraph 92.—Research to be encouraged by means of the following measures:—

(1) The Mellon System of Industrial Fellowships,

(2) Research Fellowships,

(3) Grants in aid of the publication of Research Work,

(4) Occasional lectures,

(5) Developing University Library,

(6) A University Publication Department.

Paragraph 93.—(7) Leisure to Professors and Readers for private study and investigation.

(8) Careful selection and supervision by University of its teachers, and well thought out and co-ordinated courses of study.

(9) Constitution of a body to mark out fruitful lines of investigations and problems, local and general.

(10) Sound biological training.

(11) The University to recognise for post-graduate work suitable non-University institutions.

(12) Special Diplomas for distinction in a specialised study.

(13) Committees of voluntary investigators in special lines.

(14) Making the University more representative of the industry and commerce of the Presidency.

CHAPTER IX.

Paragraph 99.—The suggestions made by the Collaboration Committee, if carried further, would materially contribute to the progress of research.

Paragraph 100.—The University should consider making journalism a subject of post-graduate study in connection with Sociology, Politics and Economics.

The arts necessary for public life and service are matters direct training in which should form some part of the University's and College's activities; but training in them must mainly be supplied indirectly through college debating and other societies.

University and colleges might make some provision to assist those entering for the Indian Civil Service Examination.

Paragraph 101.—Co-operation with private and semi-public institutions such as Royal Asiatic Society, the Natural History Society, Servants of India Society, Museums, Hospitals, etc., by subscription or endowment, if funds permit, and by reciprocal exchange of facilities, etc.

Paragraph 102.—Co-operation between the University Library and the Royal Asiatic Society and the Cama Oriental Institute.

Paragraph 103.—'Extra-mural' Adult Education and Extension courses.

A university should aim at creating and supplying the demand of the lower and upper middle class for a humanistic culture and especially a knowledge of politics and civics (*cf.* paragraph 83).

Paragraph 104.—The University should create an University Extra-Mural Collegiate Education Board composed equally of representatives of the University and persons nominated by selected non-University organisations. This Joint Board to organise a dual machinery for—

(1) Extension Lectures and classes.

(2) (*i*) Tutorial classes of approved courses of two to three years' duration.

(*ii*) Two Committees of the Board for the purpose.

(3) The University to contribute to the Board and ask a grant from Government and Municipal authorities of the locality for this purpose.

(4) Lecturers and tutors to be paid salaries and travelling expenses: Rs. 50 per lecture, and for tutorial classes, Rs. 1,000 per annual session of 24 meetings of 2 hours each.

(5) Certificates to be granted.

(6) The lectures and tutorial work to be in vernacular or English according to the needs and desires of students.

CHAPTER X.

Paragraph 106.—The University must for the present retain a Matriculation Examination framed to test proficiency in the essentials of an elementary culture, Languages, Mathematics, History, Geography, Science.

For the present, too, the Matriculation Examination must remain an external examination.

Paragraph 108.—A stricter use of the University's power of recognition and withdrawal of recognition.

Saving of two years at the primary and addition of one year at the college end of secondary education, with necessary modifications of curricula.

Vernaculars to be media of instruction and examination up to and including the Matriculation stage.

Provision of additional and more efficient means of training the secondary teachers and encouraging teachers to seek training.

Provision of larger funds for secondary education.

Paragraph 109.—A full educational course of 14 years in three stages, Primary 5 years: Secondary, Junior 3 years, Senior 2 years: University 4 years: provision for teaching English from Standard III in Primary schools: opportunities for vocational training after Junior Secondary: revision of Vernacular and Anglo-Vernacular standards.

Paragraph 110.—Intermediate colleges and a Board of Intermediate and Secondary education should not be instituted.

Paragraph 112.—The University to apply a higher standard in granting affiliation to High Schools and in admitting students to the University.

A special University authority, *viz.*, the recently approved School Leaving Examination Board to conduct a School Leaving Examination which under certain conditions shall admit to the University.

Paragraph 113.—The question ir how many and what languages a Matriculate should be required to show proficiency should be left to the University to decide.

Paragraph 114.—The regulations approved by the Senate about the standard of passing the new School Leaving Examination may be accepted.

The schools to keep the number in a class below 40 (30 is the ideal to aim at).

The level of Matriculation *ultimately* must become such as to make it a suitable point of departure for not only Arts and Science courses but also all professional and technological courses of University grade (except Law and Teaching which are post-graduate studies).

For the present, the level of Matriculation should be raised to that of the First Year's course.

Points of departure for Science and various professional courses.

CHAPTER XI.

Paragraph 119.—So long as there is one University only for Bombay the medium of instruction and examination for that University in all its classes except in vernaculars and oriental classical languages, must be English.

Paragraph 120.—The medium of instruction in secondary schools should in general be the vernacular (except in teaching English).

The extent to which and the stage at which English is introduced as a medium of instruction may vary with every subject.

In examination the candidate must be given the option. In subjects requiring definitely technical language, the simplest way is to keep the English technical terms.

Paragraph 121.—The following safeguards for English, apart from improved methods of teaching are to be employed :—

(1) A good English library.

(2) English literature text-books should be prescribed for general rather than detailed study.

(3) English must remain a compulsory subject of school study.

(4) A thoroughly practical examination test.

Paragraph 122.—The vernaculars should be among the languages studied compulsorily for Matriculation.

Vernaculars should also be options throughout the Arts course at the University.

Whether all the chief vernaculars contain sufficient suitable material for their study as Honours subjects for the B.A. and M.A. degrees is a matter which the experts of the University must decide.

Vernaculars may be included among the languages and literatures for which the post-graduate degree of D. Lit. may be awarded.

Study of vernaculars should include study of their philology and relation to other languages.

Institution of University chairs of vernacular literatures.

Paragraph 123.—The following measures may encourage good vernacular literature :—

(1) encouraging the study of other great literatures;
(2) encouraging vernacular journalism;
(3) discriminating prescription of courses and text books;
(4) support from Translation Boards and Societies such as the Gujarati Vernacular Society.

CHAPTER XII.

Paragraph 125.—A four years' course with Intermediate and Final university examinations only : but a ' Previous ' University examination for those departing for Medical, Engineering and Technological studies.

The standard of this ' Previous ', when Matriculation is raised to the level of First Year examination, to be that of the present Intermediate.

The ' pass ' and ' honours ' courses should be distinguished not as inferior and superior but as ' general ' or ' ordinary ' and special.

Paragraph 127.—A knowledge of the method and elemental facts, of Science should be a necessary subject up to and including the B.A. Pass degree.

The present disregard of language, literature and humanistic considerations in the existing Science courses should be remedied.

Paragraph 128.—The principle of continuity should be sufficiently realised in the University courses.

Paragraph 129.—Study of English should be compulsory throughout the University Arts courses. In the final honours courses, however, a command of modern English and a practical knowledge of the English language, should be aimed at, rather than a knowledge of English and literature.

Paragraph 130.—Unlimited choice in combining languages should not be allowed to honours students of languages.

Paragraph 131.—Wide choice of optional subject should be allowed to suit individual needs and interests.

CHAPTER XIII.

Paragraph 133.—A city university ought to find a place for technological education.

Paragraph 134.—The University should create a new Faculty of Technology and a College of Technology, for 200 students, to begin with, should be instituted in Bombay; the Faculty of Technology should include Engineering (civil, mechanical and electrical), Agriculture and other technical and applied sciences: the subjects to be taught in a Technological College in Bombay should be Mechanical Engineering,

Electrical Engineering, Textile Industries, and Applied Chemistry; admission to be after the First Year's study in an Arts College: the course to be one of three years for a B. Tech. degree and a further two years for an M. Tech.; the aim of every course to be clearly defined; an advisory committee for each department: responsibility for students' practical training must devolve principally on the University.

Paragraph 136.—The situation of the Royal Institute of Science is not suitable for a combination with the Institute of a full Technological College, teaching all the four departments.

Technological training should be divided between two institutions, an Applied Chemistry and perhaps, later on, Applied Physics Department attached to the Royal Institute of Science, and a College for Technological training in Engineering and Textile Industries to be opened at Matunga. The Technological College should be a university institution directly managed by the University. The Royal Institute of Science should conduct the Department of Applied Chemistry in co-operation and co-ordination with the University Technological College. The courses at the College and the Royal Institute of Science to be on the lines of those at the University of Manchester.

The cost of buildings and equipment at Matunga is estimated at Rs. 45,00,000 and of maintenance and staff at Rs. 3,50,000.

Paragraph 137.—Technological Department of Applied Chemistry at the Royal Institute of Science to be lodged in the two upper floors of the east wing facing the Museum, with an additional building.

Any necessary instruction in the principles of Engineering and Mechanical drawing to be imparted at the Matunga College.

Paragraph 139.—The cost of the Technological Department at the Royal Institute of Science will be roughly one lakh recurring, for maintenance and staff, and 5 lakhs non-recurring for buildings on the chord of the arc and fittings.

Paragraph 140.—A special committee of experts should work out details in consultation with the Advisory Committee of the Royal Institute of Science.

Paragraph 141.—No proposals are made to bring the Victoria Jubilee Technical Institute, Matunga, within this scheme.

CHAPTER XIV.

A.—Teaching.

Paragraph 142.—Government and the University in concert must devise a suitable curriculum of secondary education and the University must frame for itself a suitable qualification for entrance to the University.

Paragraph 143.—(1) Secondary Training College should remain in Bombay, with Elphinstone High School as its practising school; it should have a Primary school attached to it, as additional practising school.

(2) The College should be enlarged to accommodate 100 students annually : increase of staff and equipment, and an adequate grant for the library necessary.

(3) As at present, the examiners for the B. T. degree should include at least one member of the staff of the College, examination in the theoretical part should be based on a syllabus of instruction submitted by the authorities of the College and approved by the University.

(4) The University should encourage teachers of recognised aided schools to seek training by offering stipends of Rs. 50 per mensem to assist them.

(5) The Secondary Teachers Certificate should be replaced by a University Diploma and the Secondary Training College should provide instruction in this course through evening classes.

(6) The education section of the University Library should be developed into the central educational library of Bombay.

(7) The University should encourage suitably staffed and equipped recognised High Schools to open training departments for teachers under University supervision. Methods of training must be adapted to the larger use of the vernaculars as media of instruction.

(8) Government should grant two stipends of Rs. 125 or Rs. 150 per mensem for the benefit of the B. T. graduates, conducting research qualifying for the M. T. degree.

Paragraph 144.—The Secondary Training College, Bombay, should be recognised as an institution for supplementing the work of the University Education Department, in directions for which there are men and materials available in that institution.

The University should open a Department of Education ; it should consist of a Professor of Education, head of the Department, an Assistant Professor, and lecturers who would be lecturers on the staffs of secondary training institutions, selected and recommended by the University. The work of the University Department of Education will be—

(*i*) to investigate problems of Indian education ;

(*ii*) to supply lectures on education and psychology to students working for the M. T. degree ;

(*iii*) to provide a vacation course of training in the principles of education and psychology for students preparing for a University " Diploma of Education ".

Paragraph 145.—The University should offer two scholarships of Rs. 125 or 150 per mensem to graduates with the B. T. degree, who undertake approved experimental work.

The University should establish and maintain a "Demonstration" school, for the purpose of research. The University Publication Department should publish at university expense the results of approved research conducted by university teachers or members of the staffs of recognised training colleges.

Paragraph 146.—The University should create a diploma in education.

Paragraph 147.—A definite proportion of graduates and a smaller proportion of trained teachers on the staff should, with due regard to the supply of trained teachers and the circumstances of school or locality be laid down as necessary in future for recognition of High Schools by the University.

The Education Department of the Bombay Government should give a special grant to aided schools for every trained teacher employed *throughout the year* in the school.

Paragraph 148.—No one should be appointed Inspector of Schools whether by Government or the University, unless he has been through a course of training himself, and has an M.T. or B.T. or equivalent degree. Inspecting officers may be sent up periodically for a term of approved educational research or study in an institution for educational training.

Paragraph 149.—The University should encourage the formation and educational activities of associations of head masters and mistresses, and of assistant teachers.

The University should encourage the creation of Provident Funds for teachers in connection with every recognised High School.

B.—Law.

Paragraph 150.—It should ultimately be the aim of the University to take over the management of the Government Law School, Bombay.

The method of appointing the staff of Government Law School, Bombay, is unsatisfactory.

Paragraph 151.—We see no objection to the Poona Law Class being affiliated to a University at Poona; the affiliation of other Law classes might relieve Bombay of its excessive numbers.

Paragraph 152.—We are not in favour of extending the duration of the Law courses.

The Bombay University should, like other Indian universities, prescribe the general *principles* of Civil and Criminal Procedure rather than the Procedure itself. The University requires not a knowledge of cases and decision and practice but of the principles and history of law.

The Bombay LL.M. course should include Constitutional or Legal History, along with Constitutional Law.

Attendance at 12 sittings of a Moot Court should be a necessary part of the student's attendance.

Professors should make arrangements to secure that each student writes periodical essays for discussion.

C.—Medicine.

Paragraph 153.—We do not support the proposal to start a Medical course or degree of a lower standard than the present M.B.B.S.

Another proposal for a cheaper and shorter course for "Licensed Medical Practitioners" we reject, and suggest that recognition for such a course should be sought from the College of Physicians and Surgeons.

Paragraph 154.—We think it desirable to create a university chair for pharmacology and materia medica and the professor's department should make a systematic investigation of the drugs used in the Ayurvedic and Unani systems, as well as of other drugs produced in India.

Paragraph 155.—The University should recognise the Adams Wylie Memorial Hospital, and Dr. Masina's Hospital as suitable centres for research. The M.D. and M.S., also the B.Hy. and D.H. should be treated as post-graduate degrees.

An honorary M.D. or M.S. degree may be granted to graduates of Bombay University of at least fifteen years' standing, who have made distinguished contribution to medical science.

Paragraph 156.—Medical colleges are required at Poona and Ahmedabad and the Medical Schools at those centres should be fully equipped for raising their study to the level of the M.B.B.S.

Paragraph 157.—Professorships at the Grant Medical College should not be reserved for members of the Indian Medical Service.

Paragraph 158.—When a small dental hospital and dental laboratory are available, the University should institute a regular course for a degree in Dental Surgery. In the meanwhile, Dental Surgery should be included as an optional special subject for the degree of M.S., as is done in Madras. Ultimately the University should institute a Department of Dentistry.

D.—Fine Arts.

Paragraph 160.—A Faculty of Fine Arts should be instituted comprising departments of (*i*) Painting, Drawing and Sculpture, (*ii*) Architecture, (*iii*) Music. All branches of the Sir J. J. School of Art should be represented in the faculty.

Paragraph 161.—The principles and history of Painting and Sculpture to be included in both Pass and Honours B.A.

The University should appoint a Professor of Painting and Sculpture.

Paragraph 162.—Drawing and manual training should not be combined under one head of examination. A practical syllabus of Drawing is required that will make it a suitable basis for Painting and Sculpture and Architecture.

Paragraph 163.—The principles and history of Architecture should be included in both Pass and Honours B.A. courses.

For these courses the University should appoint Lecturers on these subjects.

Paragraphs 164 and 165.—The University should encourage the study and practice of European and Indian Music in schools and colleges: and appoint a committee of experts to investigate the part it should play in university education, the courses of instruction and the measures necessary to establish institutions for teaching European and Indian Music. Schemes for these purposes are printed in Appendix No. 15.

Paragraph 166.—The institution of a degree in Veterinary Science is not recommended.

CHAPTER XV.

Paragraph 167.—It is desirable to provide a certain proportion of free lodgings to really deserving poor students.

Paragraphs 168 and 169.—The remedies for unsatisfactory conditions of residence are

(1) the appointment of a *Board of Student's Welfare*;

(2) the new University full-time officer, the Rector, should normally be one of the College Inspection Committee;

(3) On the committee, which inspects professional colleges, there should be a larger proportion of men engaged in the profession concerned;

(4) The Syndicate should emphasize the necessity of such inspection being very thorough and including the proportion of teachers to students, the number of students in each class, sanitation, housing, health and general welfare of students.

Paragraph 170.—The University should appoint a *Director of Physical Training* for College students to conduct a medical examination of every student twice during his four years college career, and keep a record: also to organize physical training and games and sports. He should have an assistant.

For mofussil colleges, local medical men on a small honorarium should be employed.

Paragraph 171.—The Committee is of opinion that service in the *University Training Corps* should be compulsory: also that the University Training Corps ought to be gradually extended so as to be open to all who *wish* and are physically fit to join it.

Some form of *physical training* conducted by the colleges should be compulsory for all physically fit for it.

The Syndicate should appoint a committee to look after the interests of the University Training Corps.

The University should undertake responsibility for the residential accommodation of post-graduate students.

Two hostels for male and female post-graduate students should be established and managed by the University.

Paragraph 172.—The Syndicate must issue orders fixing the percentage that should be accommodated in the hostel by each college and hold Principals responsible for the lodging of every student not living in the hostel.

Paragraph 174.—We recognise the need of a Students' University Union and Club House in Bombay, to be managed by students themselves.

CHAPTER XVI.

Paragraph 177.—It is desirable to give the elective principle preponderance over that of nomination.

There is an urgent need of the creation of a body specially constituted to settle purely academic questions.

Paragraph 178.—There should be, in addition to the Vice-Chancellor and the Registrar, a full time University official of personal influence and academic experience.

Paragraph 180.—There is no need to include as an officer of the University of Bombay a Visitor who is to be the Governor-General.

The relation of the Chancellor with the University is a personal one. He sanctions or confirms as Chancellor, not as a Governor.

Government should make a fixed annual allotment to the University. All requests from colleges for additional grants should be forwarded to Government through the Syndicate of the University which should add its recommendations.

Paragraph 183.—The Senate should remain the supreme body, the governing and legislative body, with a preponderance of men of affairs and business over men of the teaching profession.

Paragraph 184.—We accept the view of the Calcutta Commission that a university requires three types of governing bodies and we provide them in (*i*) Senate, (*ii*) Syndicate, and (*iii*) Academic Council.

The existing Act of 1904 should be replaced by a new short Act, defining in general terms the powers and constitution; detailed terms of this Act should be elaborated by the Senate in a number of *Statutes*.

Regulations that are liable to frequent alteration should be embodied in *Ordinances* of the Syndicate, minor details in *Regulations* of the various university bodies.

Paragraph 185.—The present honorary office of the Vice-Chancellor should be retained as a source of valuable inspiration and guidance.

Another responsible full-time salaried officer, the Rector, is essential for the proper and efficient administration of the University.

A whole time salaried Registrar is also a necessity.

Paragraph 186.—Details of the proposed constitution:

(*i*) *Composition of the University Senate:*

(*a*) Total number of the Senate, excluding *ex-officio* members and nominees of donors to be 150.

(*b*) *Ex-officio* members, Chancellor, Vice-Chancellor, Rector, Registrar, Chief Justice, Minister for Education, Director of Public Instruction, Surgeon General, Director of Agriculture, The Vice-Chancellor of any University instituted at Poona.

(*c*) *Elected members :*

(1) Registered graduates	25
(2) Elected by public bodies and associations ..	24
(3) and (4) Representatives elected by Municipalities and District Local Boards	8
(5) Non-official members of the Bombay Legislative Council	5
(6) and (7) Principals of recognised Arts and Professional colleges	14
(8) and (9) Professors and other college teachers ..	14
(10) Head Masters of recognised High Schools ..	7
(11) Head Mistresses of recognised High Schools ..	3
(*d*) Co-opted by the Senate	15
(*e*), (*f*), (*g*) Donors	
(*h*) The Chancellor to nominate	35
	150

(*ii*) Powers and functions of the *Senate* : to be the supreme governing body, make statutes, pass or cancel ordinance, etc.

Term of office of a member of Senate should be five years.

(*iii*) Composition of the *Syndicate* : the Vice-Chancellor, Director of Public Instruction, and 15 elected members, of whom five should be Fellows that are Principals and Professors of affiliated colleges : these five should be elected by the Academic Council, the remaining ten should be elected by the Senate.

(*iv*) Powers and functions of the *Syndicate* : to be the executive and administrative body but to act in academic matters only on the recommendations of the Academic Council.

(*v*) Composition of the *Academic Council* : The Academic Council should consist of 60 members.

(*a*) *Ex-officio* : The Vice-Chancellor, Deans of Faculties, ten Principals, University Professors or heads of University Departments	25
(*b*) Representatives of Boards of Studies	20
(*c*) Elected by Headmasters and Head-mistresses ..	5
(*d*) Elected by the Senate from its members not engaged in teaching	5
(*e*) Co-opted by the Academic Council	5
Total ..	60

(*vi*) Powers and functions of the *Academic Council*: to regulate courses, examinations and generally all academic matters.

(*vii*) *Faculties.*—Six in number: to include all members of Academic Council and others: to regulate studies each in its own sphere subject to Academic Council.

(*viii*) *Boards of Studies.*—Constituted as at present to draw up syllabuses.

(*ix*) *Miscellaneous University bodies.*—

(*a*) School Leaving Examination Board.
(*b*) Board of Students' Welfare.
(*c*) Joint Committee of the Syndicate and Academic Council, to manage the Publication Department.
(*d*) University Library Committee.
(*e*) Committee to select University Professors.
(*f*) Committee of Co-ordination.
(*g*) Finance Committee of the Syndicate.
(*h*) Committees of Post-graduate Studies.
(*i*) Examinations Board.

(*x*) *University officers.*—

Chancellor: his assent necessary to statutes and appointment of Vice-Chancellor.

Vice-Chancellor (honorary): to exercise general supervision.

Rector: full-time; on a salary of Rs. 3,000 per mensem with rent-free house; tenure of office for five years; to be the principal executive and academic officer of the University.

Registrar: full-time; on a salary of Rs. 1,000—100—1,500 per mensem with free quarters; same duties as at present.

Assistant Registrar: full-time; on a salary of Rs. 500—25—750 per mensem.

Secretary, School Leaving Examination Board: a full-time officer on a salary of Rs. 750—50—950.

University Librarian: full-time on a salary of Rs. 350—25—500 (efficiency bar)—50—1,000.

University Professors, Readers and *Assistant Professors* (see Chapter VIII, paragraph 86).

All officers to contribute to the University Provident Fund.

A.—Women's Education.

CHAPTER XVII.

Paragraph 187.—Girls should have the same optionals as boys and some others in addition, whether at the Matriculation or other University examinations.

Paragraph 188.—Girls should have the same compulsory subjects as boys. Girls should not be allowed to substitute another subject for mathematics at Matriculation.

It is undesirable to make any distinction between boys and girls in respect of the qualifications for Matriculation, whether in subjects or standards.

Paragraph 189.—The proposal to allow girls to take the Matriculation in two stages is not approved.

An age limit for girls at Matriculation is also rejected.

An oral examination specially for girls at Matriculation is not approved.

Paragraph 190.—Co-education should be the principle of the Bombay University. A separate University for Women is wasteful of money and effort and is not in the interest of higher education of women in this Presidency.

Paragraph 191.—Co-education is considered preferable; separate colleges for women are not favoured; special needs of women undergraduates can best be supplied by institution of Hostels for women students, under the superintendence of a qualified and experienced staff of women graduates. There is however a large body which favours the other view that separate colleges should be started for women in order to give a stronger impetus to female education, especially for Mahomedan girls.

B.—Examinations.

CHAPTER XVII.

Paragraph 192.—Examiners to be appointed by the Syndicate on the recommendations of the Academic Council. The control and management of examinations to be in the hands of the Academic Council.

Examiner should not examine more than three years in succession.

The principle of including external examiners approved.

Paragraph 193.—University to instruct examiners to be on their guard against too mechanical a system of valuation.

Condonation of failure, granted in a systematic way, is approved.

Paragraph 194.—Creation of a special *Examination Board* for controlling examinations is desirable and worth trial; its duties merely advisory.

Paragraph 196.—Authorities to issue reasonable instructions and syllabuses, the examiners to interpret and apply them reasonably.

A loftier ideal, a higher standard of what constitutes efficiency to be placed before students. The raising of the University standards of achievement wherever possible is urged.

The standard of examination of the new School Leaving Examination Board is accepted.

Paragraph 197. Use of more centres is inevitable, at least for Matriculation.

Paragraph 198.—The experiment of creating an Employment Bureau should be tried once again.

Paragraphs 199 and 200.—Proposal to institute a Faculty of Oriental Learning rejected.

If the Intermediate Examination be the starting point, the creation of a special course and special B.A. and M.A. degrees in Oriental Languages not objected to.

Paragraph 201.—A study of comparative Philology necessary for the study of oriental languages.

University to send selected men to Europe for special training in language study.

Oriental literature to be studied as the expression of the thought, character, *and life* of a people and therefore co-operation with history and archæology is necessary. Creation of an institution for the preservation of traditional matter and methods in oriental languages is necessary to keep up the succession and traditional training of Sanskrit Pandits, etc. An endowment is necessary to finance such institution.

CHAPTER XVIII : FINANCE—

Paragraph 204.—An additional income of about Rs. 60,000 per annum might be raised by the University by levying certain new fees.

Paragraph 206.—The Municipal Corporation of Bombay and other public bodies should make an annual contribution to the University.

Paragraph 209.—Any new University Act should contain a clause similar to section 44 of Chapter IX of the Madras Act of 1923 providing for a statutory grant from Government to the University.

Government should give a fixed grant of five lakhs per annum to the University.

Paragraph 210.—Government should provide (not all in one year) a sum of 30 lakhs to meet half the non-recurring expenditure required for the University of Bombay by the Committee's proposals. The other half should be raised by an appeal to the public.

Paragraph 211.—An alternative proposal is that the State raise a loan of 60 lakhs to meet the non-recurring expenditure required for the Committee's proposals.

C. H. SETALVAD—*Chairman.*
E. BLATTER.
FAZULBHOY CURRIMBHOY (subject to notes signed by me).
M. R. JAYAKAR (subject to my notes in several parts of the Report).
A. B. LATTHE (subject to my notes).
MIRZA ALI MOHAMMED KHAN (subject to my notes).
K. NATARAJAN (subject to my note).
JEHANGIR BOMANJEE PETIT.
K. T. SHAH (subject to my note).
A. L. COVERNTON—*Secretary.*

Members.

Bombay, the 18th May 1925.

We desire to say that the following note by one of our colleagues, Mr. Latthe, came to us on the day fixed for our final meeting. We regret that Mr. Latthe, in the course of our discussions, did not state to us many of the considerations and arguments which he now embodies in his note. If that had been done, we would have found ourselves in a position to deal specifically with the points made by him. We cannot, in the circumstance, now do that at this late stage. We must not be regarded as in any manner accepting the accuracy of the statements and the conclusions of Mr. Latthe.

C. H. SETALVAD.
E. BLATTER.
FAZULBHOY CURRIMBHOY.
M. R. JAYAKAR.
MIRZA ALI MOHAMMED KHAN.
K. NATARAJAN.
JEHANGIR BOMANJEE PETIT.
K. T. SHAH.
A. L. COVERNTON.

Note L.

On the Maharashtra University (by Mr. A. B. Latthe).

1. I am sorry I cannot agree with the view of the Committee on the question of a Maharashtra University at Poona which they recommend in Chapter VI. The differences on some aspects of the problem of new universities in this Presidency are so fundamental that I feel I must explain myself at some length in order to show how those differences arise and why I cannot accept the majority view of the Committee.

2. The Committee recommend that the future universities of this Presidency should be of the affiliating type, though they admit in the case of Poona that under certain circumstances mentioned in Chapter VI, paragraph 59 (*ii*), it will " be open for the new University to make out a case and apply for such change in its constitution as will allow it to undertake a residential teaching university with colleges at Poona constituted on a somewhat different footing from those outside Poona ". If, however, Poona goes in for an affiliating university to start with as suggested by the Committee, it is easy to see that such an undertaking would be a far more difficult task in future than now. At present there are only two first grade colleges on the southern borders of Maharashtra one of which belongs to the Deccan Education Society of Poona and the third college at Nasik is only a second grade institution with as yet no history behind it. The Committee base their view of the necessity of the new universities on their belief that " the institution of additional colleges suitably equipped at a variety of centres would materially hasten the diffusion " of higher education in the Presidency. Obviously therefore the number of such colleges according to the

scheme of the Committee must increase with time. If a residential university is ever started at Poona, these outside colleges with their numbers increased must resent their differentiation from Poona colleges, a differentiation which would be absolutely unavoidable. I cannot see how any Government could then disregard the protests of a considerable number of colleges in the districts of Maharashtra against any distinction being made between themselves and the colleges at Poona. In rejecting the proposal of a combined affiliating and residential teaching university at Bombay, the Committee have further shown—and I agree with the Committee on this point—that the combination of these two types is likely to produce results similar to those which are disclosed in the letter of the Vice-Chancellor (*vide* paragraph 67 and paragraph 69 (*ii*) of Chapter VI) of Allahabad. The conclusion I would draw from all these considerations is that the combination of a residential university in Poona with functions of affiliation attached to it in respect of colleges outside Poona would be almost impossible and the proposed Maharashtra University would remain an affiliating university if the recommendations of the Committee are accepted.

3. The proposed affiliating university at Poona would require at least 60 lakhs for non-recurring and two lakhs and a half for recurring annual expenditure. And what would be the advantages ? The Bombay University would be relieved of " a large share of the burden of higher education ". (Chapter VI, paragraph 68). When analysed, this would really mean no advantage at all. The only difference would be that the university examinations which are at present uniform would not be so under the new conditions. The cost of doubling the university staff and the boards of examiners would be substantial. The men who conduct the examinations and do all the work connected with them at present will have to do the same work over again. Even now, Poona professors take a large part in the Bombay University work. Their work may either increase in which case they will not be able to share the burdens of the Bombay University, or they will have to be assisted by Bombay professors in which case there is absolutely no saving of labour. The probable disadvantages of this doubling of the university machinery would be very great. Constituted chiefly, as Poona University will be, of private colleges whose finances are largely derived from fees paid by students, a very undesirable competition may set in between the two universities and a lowering of the standards may follow. As the Government of the United Provinces observe, and that Government is peculiarly qualified to express an opinion on such a question : " The universities impelled by financial pressure have begun to compete for students, and the easier they make their courses and examinations the more likely are they to be successful " (Reforms Enquiry Committee's Report, Part I, paragraph 12). I do not see how this danger would be less in this Presidency than in the United Provinces.

4. The majority of the Committee recommend the creation of new universities in the four divisions of the Presidency on grounds about which there is a clear difference of opinion between them and those who

like me propose a residential teaching University at Poona. The Committee believe that there is "need of a wider diffusion of higher education through the Presidency" and additional colleges at various centres, affiliated to new Universities in the centres of the four divisions, would in their opinion achieve this object. I have no doubt that there is need of higher education reaching large classes of society which have hitherto remained untouched by University education. But this makes it all the more necessary to see if the "wider diffusion of higher education" on lines which have been adopted in the past are the lines on which progress should take place in future. In Chapter IX, paragraph 103, sub-section VI (*d*), the Committee say that we have at present a "very restricted higher education and consequently a very small body of persons available for teachers". Clearly, therefore, the Committee desire that the creation of the new universities should lead to an increase in the number of those who pass the higher examinations in the arts course. Were this desirable, I have no hesitation in saying that the creation of divisional universities, affiliating colleges situated in the various district towns, would be the most effective means of achieving the object. But I hold that the number of people receiving higher education in our Presidency is not too small for the conditions prevailing among us and any attempt to increase the same on the same lines as now would be productive of great evils. What is the present position of higher education in India to-day? "Still more striking are the figures of university education, where the percentage of the population undergoing instruction is no less than 0·025 per cent. Since again the female population has almost to be eliminated this figure compares strikingly with 0·054 per cent. of England and Wales. In other words Indian education is ill-balanced; for while the poorer classes are predominantly illiterate, the middle classes are educated in a proportion equal to that of countries whose social and economic conditions are more highly developed". (*India in 1922-23*, by L. F. Rushbrook Williams, page 234). Confining our attention more particularly to our own Presidency, we find that out of very nearly eight thousand students in the arts and professional colleges, only 537 belong to the intermediate and lower classes with a total population of over a crore and twenty-nine lakhs while only 333 belong to the forty lakhs of Mussalmans. This means that over 7,000 students in the colleges belong to the section of the population which does not number more than 30 lakhs. Considering the fact that very few of these 7,000 are girls, the unbalanced and excessive spread of higher education among a small section of the population is obvious. I give these figures not for the purpose of recommending artificial retriction on the spread of higher education among any section of the community or among the people of the Presidency as a whole, but to point out, firstly, that the college-going numbers of certain classes have been too large for the needs of the classes themselves; secondly, that this has tended to make education too much of a means of livelihood; and thirdly, that a diffusion of higher education on these lines on a scale larger than now by the starting of the present type of colleges in more places than at present would aggravate the evils

of which the educated classes themselves are fully conscious without assisting the cultivation of higher learning, humanistic, scientific or technological, in the Presidency. What is at present needed is that the university life of our students should be improved on all sides, the best of them should be encouraged and helped to pursue learning for its own sake, that greater facilities should be provided for scientific and technological education and that the masses who have hitherto remained far away from the portals of the University should be induced and enabled to participate more and more in the benefits of higher learning and culture.

5. In view of this, I believe that the first step which ought to be taken is to set up a new type of university education among us. I agree wholly therefore with the proposals to concentrate colleges in the City of Bombay around the University centre, so that they may together form a more compact, a more organic and a more efficient whole. But besides being extremely costly, the scheme will not meet the needs of the masses in the Presidency. Universities in the four divisions of the Presidency, which should be free to cultivate their own vernaculars, are therefore essential. But the object for which they ought to come into existence will not be served by adding to the present type of colleges and affiliating them to what must remain an external body of examiners called a University. The new universities will serve more compact and homogeneous areas and a concentration of colleges in each division at one suitable place would not cause very considerable inconvenience. A university at Poona, with all its colleges situated in one neighbourhood or one at Dharwar with a similar concentration of its institutions would, I think, meet the needs of the two divisions. Of course a boy at Belgaum would prefer a college at Belgaum rather than at Dharwar. But since it is impossible that each district town should have a true university, our linguistic sub-provinces would and should be content with one university centre within the area of each one of them. We do not at present require more ill-fed colleges of one, fixed type and more factories to manufacture graduates through their annual examinations. What we do want is the best type of university life such as is possible only in a residential university. If this will put the boys in the division to the inconvenience of going to Poona, Ahmedabad, Karachi or Dharwar instead of their being able to secure degrees in their own native towns, I think the advantages they will derive will be sufficiently important to compensate for that inconvenience. Many of the boys come from villages and I do not think that it will make much difference to them whether they go for their higher education to the capital of the district or of the division. The Government of Bombay have, it seems, had this question of permitting the opening of new colleges at mofussil centres under their consideration: and they seem to have postponed decision pending the report of this Committee. (Paragraph 6, G. R. No. P.—36 of August 15, 1925). I am of opinion that though the time for starting new universities at the four divisional centres may not yet have come, it ought definitely to be laid down *now* that new colleges should be opened only at the specified prospective university centres and within areas of those centres which

should be convenient for the growth of a residential university therein in the future.

6. It is not necessary to expatiate on the advantages of a residential university over a purely affiliating one at Poona. The Committee have criticised the scheme of Dr. Paranjype in paragraph 64, Chapter VI. That scheme was set out by Dr. Paranjype in the course of preliminary discussions and it need not be taken as a final scheme in all its details. My point in saying this is to show that the criticisms of some of its details, though fully justified, need not lead to a rejection of the scheme as a whole. For instance, the proposal to convert the Deccan College into a public school or Intermediate college is not such as I would approve. Nor is it an essential part of the scheme. It would in fact be easier to transfer the Deccan College from its present location to a more convenient place on the Fergusson College side than to remove the Wilson College to the Fort area. I do not know why this may not be done so that it could form a very important part of a residential university at Poona. The College of Engineering and the College of Agriculture also need not be excluded from the scheme. They are no doubt institutions for the whole Presidency and should continue to be so in future. They would in any case be controlled and financed by Government who may be trusted to keep their doors as widely open to students from all parts of the Presidency as now. Their forming part of the university at Poona rather than at Bombay would in no way affect their status or character. The contention that such a residential University at Poona would limit its advantages to Poona and " perhaps even there to two colleges there rather than to Poona as whole" (Chapter VI, paragraph 64) is not justified. Until similar universities are founded in the other divisions, this university at Poona should be treated as an experiment made for the benefit of the whole Presidency and, if need be, the Deccan College may make special provisions for the admission of students outside Maharashtra as the members of the new university. This would in all probability be unnecessary as every college in Poona will be only too glad to attract distant students. The very fact that a distinguished Gujerati gentleman is presiding over one of the two private colleges in Poona is sufficient to show that there need not be much fear of narrow provincialism in the proposed university. In order to allay all doubts in the matter the Senate of the Poona University may be so constituted as to secure thereon the representation of all parts of the Presidency which may drop away after those parts have their own universities. A large number of students who are at present examined by the Bombay University will be dealt with by this University and in this sense the Bombay University will be relieved of some of its burdens. The problem of the Poona University, however, ought not to be considered from this narrow view-point and should not be rejected on the ground that it does not supply " any adequate solution to the problem of the University of Bombay ".

7. The other ground on which the Committee rejcts the scheme of Dr. Paranjpye, without finding " fault with the type of university suggested in this scheme ", is that it has not obtained enough support

locally. And what is the local support secured by the scheme recommended by the majority ? The colleges outside Poona, the Willingdon College and the Rajaram College, do not approve of the creation of any new university in the Presidency. The Principal of the Deccan College, on behalf of the whole college staff, emphatically opposes the opening of the new local universities. These are opinions which must be taken to be opposed to the Committee's proposals as much as to those of Dr. Paranjpye. Of those who favour the idea of some sort of university at Poona, the Deccan Education Society has the strongest claim to attention. This Society is entirely in favour of a residential university. The Life-Members of the other educational body of Poona which conducts an Arts College say that the University at Poona " may be either a residential teaching university or a university affiliating colleges in the whole of Maharashtra and Karnatak ". Principal Shah of the New Poona College is personally even more emphatic than this and holds that the new university ought to be residential. Thus it will be seen that the two colleges which support a university at Poona also support a residential university and while none of them opposes it, one of the two colleges is wholly against a merely examining university. I do not forget that the two other witnesses, representing societies which are of far less importance on a question like this do support an affiliating university. The balance of opinion is however clearly in favour of a residential type. I do not accept the view that it has not obtained " such support locally as to make us think that the experiment it involves would have chance to succeed " .

8. For the present, until each linguistic division of the Presidency has its own university and until the vernaculars are all properly developed, I agree with my collegues that the medium of instruction in the Poona University must be English. For a long time even after these conditions are fulfilled, the medium of instructions in the colleges of Agriculture and Engineering will have to be English. But I think that one of the chief objects of the new university must be to pay special attention to the interpretation of western science, literature and culture through the vernaculars so that they may reach the masses in the country who are not likely to study English to any considerable extent. The University of Bombay has done very little in this direction. Some of its alumni have indeed been distinguished writers in their own vernaculars and the University may certainly take credit for their services to their own literatures. But the achievements in this direction have not been sufficiently great and the fact remains that the University as such has not been able, owing to various causes, to do much organised work for developming the vernaculars. Many of these causes will not hamper the new university. The professors and teachers of universities such as will be established in Poona and, later on, at other places, will consist of a predominantly Indian element whose interest in the advancement of learning will be more permanent than that of men who must always retire from India as soon as they can. It should be their primary duty to fulfil the objects with which the system of English education in India was founded and which inspired the statesmen who founded the universities

in this country. Macaulay realised that it was impossible "with our limited means, to attempt to educate the body of the people". "We must at present do our best," he continues, "to form a class who may be interpreters between us and the millions whom we grovern. To that class we may leave it to refine the vernacular dialects of the country, to enrich those dialects with terms of science borrowed from the western nomenclature and to render them by degrees fit vehicles for conveying knowledge to the great mass of the population". The new University should be an organisation charged with this duty. It should be its aim to cultivate the vernacular as quickly as it can, so that the same may contain a literature which will place the highest learning and culture of the University within the reach of purely vernacular readers and that the vernacular may become a fit medium of university education, as early as may be possible, in all subjects except the English language and literature which should be a compulsory second study for all who take degrees.

9. Pending the establishment of the universities at Poona, Ahmedabad, Karachi and Dharwar, I think it is necessary that Divisional Boards should be established by the University of Bombay as a transitional step leading on to the ultimate goal. These Boards should, in the first place, organise post-graduate teaching work within their area, for which the University should sanction fixed grants to each division. This will bring the colleges in the division and the men who are fitted to take interest in their higher education of their division together for a university purpose. These Boards will advise the University on the question of locating new colleges in their division with a view to the development of their own university schemes. They will further be of the greatest value to the University in keeping a close eye on the High Schools within their areas, some of which at any rate stand very greatly in need of supervision at close quarters. They may also be expected to enlist public support for the schemes of post-graduate and other university work in their divisions. Above all, they ought to be able to take all possible steps to cultivate the vernacular literature of their own province and help the University to organise university extension work in their own spheres of activity.

29th April 1925. A. B. LATTHE.

Note M.

By Professor K. T. Shah.

The difference between my colleagues of the majority and myself arises out of a difference in the interpretation of our terms of reference. The very first item in the reference requires us—

> "To inquire into the constitution and functions of the Bombay University with a view to broaden and liberalise its constitution and effect its *transformation into a teaching University* ".

2. In order to effect the required transformation into a teaching university, I think it is not enough to centralise into the University only

the post graduate teaching work, and be content with a co-ordination of the B.A. Honours classes. I agree with Mr. Jayakar (*vide* Chapter VII, Note F) that the University should take over direct teaching not only of the post-graduate courses, but also of the undergraduate courses and be not satisfied merely with the co-ordination of the B.A. Honours courses. But while Mr. Jayakar and I are agreed as to this goal, he is satisfied at present with the instalment of advance recommended by the majority of the Committee, leaving the full goal to be attained by gradual stages in the future. I, on the other hand, hold the view that considering the reference made to us, measures should be taken immediately to accomplish the "transformation into a teaching university". On this view, instead of the colleges in the City of Bombay remaining independent and more or less self-contained units by themselves, it would be necessary to pool together the resources of the several colleges now existing in the City, in order to concentrate all teaching work in the University directly. Also, any collegiate institution which might come into being hereafter in the City, *e.g.*, an Academy of Fine Arts,—will have, in my view, to be placed directly under the control and management of the University. I am quite aware of the sentiment of the exising colleges to maintain their separate existence; but I think that sentiment is not consistent with this goal of a fully teaching university in Bombay, and will accordingly have to be overcome, in the real interests of university education. I think such a measure will make for greater economy and efficiency in the university teaching in Bombay.

3. If my view is adopted, and in order to give effect to it in practice, the Bombay University will have to possess two aspects: it will become a unitary, teaching, residential university for the City of Bombay (Internal): and, until a sufficient number of relieving universities are established in the several linguistic divisions of the Presidency, the Bombay University will still have to continue to be an affiliating and examining university (external) for those colleges in the mofussil which have no university in their own province to which they could be naturally affiliated.

4. If the Bombay University assumes the dual character, I have outlined above (*internal* and teaching for the City, and *external* and only affiliating for the outside centres), its constitution and that of its various component bodies and authorities will have to be adapted for the requirements of this transformation. I do not propose, because it is unnecessary, to work out the details at this stage of those necessary and consequential alterations in the constitution, such as the total strength of the Senate and the distribution of the seats therein, or the institution of a special authority to deal with the relations of the University of Bombay with the non-Bombay colleges during the transitional stage, which will automatically follow the changes I have proposed. I accept, of course, the elective principle in the constitution of the university bodies, as recommended by my colleagues, and would even go further in that direction. It would, however, be quite easy to work out in detail, at the proper time, all these consequential changes in the

constitution of the University, if once the main principle of transformation I have advocated is accepted.

5. In passing, I may draw attention to the foot-note in the main Report (*vide* paragraph 186 (*x*), Chapter XVI), regarding my opinion against the Chancellor having any power of veto over the statutes passed by the University Senate, or over the election by that body, of such an exalted authority as the Vice-Chancellor of the University. I also consider the University should take a much greater share in mass education than it has hitherto done, distinguishing it from adult education.

6. With regard to the proposed new universities in the different linguistic divisions of the Presidency, their constitution and functions will have to be of the same pattern as that I have mapped out for the City and the Presidency university of Bombay: *i.e.*, each of these new universities should be a unitary and fully teaching university for the immediate centre in which it is located, and should at the same time be an affiliating and examining university for the non-central colleges in the rest of the province. And in this connection I would like to emphasise particularly the immediate need for a university in and for Gujerat. While my colleagues have said that a university in Gujerat may be established when the conditions laid down by them are fulfilled, I am strongly of opinion that Gujerat should have a university at the same time as Maharashtra. I think the question of additional provincial universities in this Presidency should not be considered with reference exclusively to the demand made for such an institution in a province but rather from the point of view of the need for such an institution. And the need for additional provincial universities in the Presidency must be judged primarily according to the existence of a sufficient amount of distinct local culture that needs to be developed by a separate university particularly though not wholly devoted to that purpose; and secondarily from the point of view of the relief such a university would afford to the overtaxed University of Bombay. I need not labour the latter point, as it is obvious that every new university in the Presidency that the Committee has proposed, if properly started, would afford great relief to the University of Bombay. The former consideration, however, needs to be emphasised more than has been done, with special reference to Gujerat. The industrial and commercial activities of that province, as well as the financial resources arising out of such activities, not only make it extremely desirable, in my view, that a separate university be established in that province at as early a date as possible, but render it much more easy to do so, I venture to say, than perhaps would be the case as regards the University of Maharashtra. It may be that the people of Gujerat are not sufficiently vocal in their demand for a separate university in that province, though, I think, such representatives as Mrs. Sharada Mehta and the Honourable Mr. Lallubhai Samaldas, who appeared before us in evidence, were quite emphatic about the need for a separate Gujerat University. In any case, I do not think the volume of vocal demand for a separate provincial university placed before the Committee is quite the most proper standard to go by in determining the ripeness of a province for a

separate university. If concrete proposals for a separate university for Gujerat are placed before the people of that province, I feel convinced that the necessary financial support and enthusiasm would be immediately forthcoming. From the point of view of its literary and cultural activities, Gujerat, in my view, need fear no comparison with Maharashtra; and, accordingly, the presence of the basic condition for the success of a new University in Gujerat need not at all be doubted.

7. As regards the financial aspects of the proposals for university reform in the Bombay Presidency, I hold that the terms of our reference do not make it at all incumbent upon us to consider that question: that the material we can command for such a consideration is unavoidably so small that the figures worked out could only be very rough estimates; and that it would much more properly be the work of a special Committee to offer more concrete and dependable suggestions. Under the circumstances, I need not labour that point at all, beyond pointing out that in my opinion the best way satisfactorily to finance a university is for the State to endow it with sufficient income-yielding property to meet all its ordinary wants. Further, I think the transformation into a teaching university would be much more complete and effective, if all grants now made by the Government to the colleges were to be made in the first instance to the University, to be by that body distributed in accordance with the general scheme of pooling all resources.

K. T. SHAH.

APPENDICES.

APPENDIX No 1.

QUESTIONNAIRE ON UNIVERSITY REFORM IN THE BOMBAY PRESIDENCY.

I. AIM AND FUNCTIONS OF UNIVERSITY EDUCATION (Questions 1-3).

1. What in your opinion should be the aim and functions of University education in the Bombay Presidency ? Do you consider that the existing system of University education in this Presidency affords the young Indians of this Presidency adequate opportunities attaining this aim ? If not, in what main respects do you consider the existing system deficient ?

2. Do you consider that the defects pointed out by you mainly lie in or spring from (*a*) the spirit and methods of instructor or pupil : (*b*) the conditions of education antecedent to the students' entrance of the University : or (*c*) the administrative or educational machinery of the University ?

3. How far in your opinion has the University promoted knowledge of, and mutual interest in and sympathy for, the history and culture of the different communities in this Presidency ? Can you suggest means by which this can be further promoted ?

II. SECONDARY AND INTERMEDIATE EDUCATION (Questions 4-7).

4. Do you consider the training and attainments of students coming out of our High Schools sufficient preparation for entering upon University education ? If you consider this preparation inadequate, have you any suggestions for the improvement of the present conditions ?

5. Do you consider the creation in this Presidency of (*a*) a new set of institutions intermediate between High Schools and University (*b*) a new Board of Secondary and Intermediate Education such as was proposed by the Calcutta University Commission necessary or desirable ? If so, how should such institutions and such a Board be constituted and financed ?

6. If you consider intermediate institutions, with or without an Intermediate Board, unnecessary or undesirable ; how without them could the level, range and effectiveness of existing High School education in this Presidency be improved ?

7. How may the University best secure the *maintenance* of efficiency in the institutions that send students to it for admission ?

III. FUNCTIONS OF THE UNIVERSITY OF BOMBAY. (Questions 8-24).

(*a*) TEACHING. (Questions 8-13).

8. In what directions is it necessary and practicable as well as advisable, in your judgment, to extend the functions of the University of Bombay so as to make it predominantly a teaching University ?

9. Do you consider that the University should, in addition to post-graduate teaching, take any direct part in undergraduate teaching ? If so, how would you reconcile and co-ordinate the teaching functions of the University with those of the existing teaching institutions ?

10. If you do not consider that the University should take any direct part in undergraduate teaching, how by proper co-ordination would you utilise to the best advantage the existing facilities for undergraduate study ?

11. Is it necessary or desirable for the Bombay University, if it assumes teaching functions, to undertake direct responsibility for the control and maintenance of any of the Colleges affiliated to it or of any other institution ?

12. Do you anticipate any difficulty arising from an overlapping of the jurisdiction of the University and professional organisations ?

13. If the Bombay University does not directly control and maintain the Colleges affiliated to it, by what means can it fully ensure that every institution affiliated to or incorporated in it is adequately staffed, adequately equipped, and effective in educational work ?

(*b*) ORGANISATION OF LEARNING (Questions 14-15).

14. What resources and facilities at present exist in or near Bombay City for the formation of a great centre of learning ? How far are these resources organised to serve this purpose ? What changes, if any, and what expansions would you suggest ?

15. How would you bring about a closer relation and co-operation between the University and the various institutions and societies in Bombay for teaching, learning, investigation, and experiment.

(*c*) PRESCRIBING COURSES AND EXAMINING (Questions 16-19).

16. How in your opinion has the University been discharging the functions of (*a*) conducting examinations, (*b*) prescribing courses of study, and (*c*) appointing text books ? Would you suggest any modifications in the exercise of these functions ?

17. How far can University examinations be profitably replaced or supplemented by other means of testing proficiency, intelligence and competence ?

18. Of what branches of study should the Bombay University undertake the teaching immediately and in the near future ?

19. In considering the extension of the teaching functions of the University of Bombay and bearing in mind the special requirements of the people of Bombay, would you suggest the institution of any more faculties, *e.g.*, of Fine Arts or Technology, so as to make the scope of the University broader, more liberal, and more comprehensive ?

(*d*) POST-GRADUATE COURSES AND DEGREES (Questions 20-21).

20. When the Bombay University further develops its teaching functions, what should be the duration of studies for post-graduate degrees ? How would you award such degrees, whether by examination, thesis, original research or a combination of one or more of these ?

21. Do you wish to institute any new degrees *honoris causa* and, if so, on what grounds would you have them awarded ?

(*e*) PROMOTING RESEARCH (Questions 22-23).

22. How can the University best encourage and guide independent investigation of Indian and especially Bombay problems, whether historical, economic, sociological, industrial, or other ?

23. Is there any need for the creation of a University Press and Publication Department ? How might such Department be organised and financed ?

(*f*) APPOINTING UNIVERSITY TEACHERS (Question 24).

24. In a Bombay Teaching University what should be the method of selecting and appointing University Professors, Readers, Lecturers, etc. ? What qualifications are requisite in them ? What range of salaries do they require ? What should be the conditions regulating their appointment and tenure of office ?

IV. ADDITIONAL UNIVERSITIES IN BOMBAY PRESIDENCY (Questions 25-30).

25. Is it desirable to consititute any additional Universities within the Bombay Presidency ? What centres of higher education in the Presidency do you consider (*a*) ripe for immediate expansion into Universities, (*b*) likely to be ripe in the near future ; and on what grounds ?

26. Can you give an outline of a scheme showing the educational character, administration, constitution, territorial limits, and relation to existing institutions, general or professional, which you suggest for any new University that you may propose.

27. What financial resources would be requisite for any new University you propose ? Whence do you think these resources can be obtained ?

28. How would the institution of additional Universities affect the existing University of Bombay ? How would you secure co-operation, co-ordination, and reciprocity between the University of Bombay and the new Universities ? What arrangements do you suggest for the period of transition ?

29. How would you deal with the endowments now at the disposal of the University of Bombay in the event of new Universities being established in the Bombay Presidency ?

30. What principles or policy should be followed by (*a*) the Bombay University (*b*) any new University within this Presidency in permitting the opening of any new College or institution, constituent or affiliated ?

V. RELATION OF THE UNIVERSITY AND THE PUBLIC (Questions 31-34).

31. How far do you consider the curricula of the Bombay University satisfy the needs of agricultural, industrial, professional, and public life in the Presidency, and especially in the City of Bombay ?

32. Can you suggest methods of promoting cordial relation and co-operation between the University and other public bodies whether industrial, commercial, professional, municipal, or Governmental ?

33. What measures should be taken to bring the University and its working into closer relation with the industrial and commercial life and interests of the City ?

34. What should be the extent and purpose of the University's contribution to the education of the adult non-collegiate population ? How should the University organise extension lectures, vacation terms and other measures to this end ?

VI, RELATION OF UNIVERSITY AND GOVERNMENT (Question 35).

35. What should be the relation of the Government of India and of the Government of Bombay to the University of Bombay and to any new Universities that may be created ? What modifications, if any, do you think necessary in the existing powers of the Chancellor and of Government to control

University finance, legislation, appointments of University officers and teachers and membership of University bodies ? What should be the relation, if any, of the Director of Public Instruction and the Minister in charge of Education to the University ?

VII. CONSTITUTION (Questions 36—40).

36. What defects do you find in the constitutional machinery of the University of Bombay ?

37. What should be the strength, composition, duration of office, method of constituting and powers and functions of the Senate ? Who, if any, should be *ex-officio*, life, and nominated members of the Senate ? How does your method of constituting the Senate secure the representation of all interests and communities ?

38. Do you consider that it is necessary or desirable to decentralise the powers and functions hitherto exercised by the Syndicate of the Bombay University ? If so, what powers or functions would you remove from the Syndicate and to what new or existing bodies of the University would you assign them ? How should the Syndicate so reorganised and any new bodies you may propose be composed ?

39. What functions and powers would you assign to the Faculties and Boards of Studies ? How should these bodies be constituted and appointed ?

40. Should (*a*) the Vice-Chancellor and (*b*) the Registrar of the Bombay University be whole or half time officers, and honorary or salaried ? How and on what conditions should they be appointed ? What should be the powers and duties of the Vice-Chancellor ?

VIII. CURRICULA (Questions 41—44).

41. Are you generally satisfied with the subjects and curricula at present prescribed for the various University examinations ? If not, can you indicate the changes you desire ?

42. Are you in favour of establishing (*a*) an absolute or (*b*) a greater differentiation of the pass and honours courses ? How would such differentiation affect the Colleges and students ?

43. Would you approve of an absolute exclusion of science from the Arts Courses ? Do you approve of the present dissociation of literature and Arts from the study of Science ?

44. Do you consider the existing courses for the Bachelor's and Master's degrees provide a sufficient variety of options and satisfactory combinations and correlations of courses of study ?

IX. USE OF THE VERNACULARS (Questions 45-46).

45. To what stage and to what extent do you consider the vernacular can and should be used to replace English as the medium of instruction and examination (*a*) in Bombay, (*b*) in any newly constituted University? What safeguards do you suggest to secure that the standard of English acquired by students does not suffer from such replacement?

46. What do you consider the best method of promoting the scientific study of the vernaculars of this Presidency and for encouraging the production of good vernacular literature of all kinds?

X. CONDITIONS OF LIFE, HEALTH, AND HOUSING OF STUDENTS (Questions 47-48).

47. How can the Bombay University exercise closer control over or influence upon the conditions of life, health, and housing of its students?

48. To what extent should new Universities be made residential? Is it possible to establish a residential area or areas in the case of Bombay and if so where?

XI. EMPLOYMENT BUREAU (Question 49).

49. What University organisation, if any, do you suggest for securing adequate and suitable employment for its alumni?

XII. WOMEN STUDENTS (Questions 50-51).

50. Do you consider that any differentiation from the curricula of male students is required in this Presidency for female students?

51. Do you consider there is any need for a separate University or separate colleges for women?

XIII. SPECIAL COMMUNITIES (Question 52).

52. Do you consider any special measures are required for the promotion of University education in any particular community?

XIV. FINANCE (Questions 53-54).

53. Can you estimate the additional cost to the University of any changes you have suggested? Will you further indicate the resources from which additional funds for this purpose may be obtained?

54. How can the financial resources of the Bombay University be increased to enable it to reform or improve or extend its methods, equipment and organisation?

APPENDIX No. 2 (*vide* Chapter II).

NUMBER OF CANDIDATES APPEARING AT UNIVERSITY EXAMINATIONS DURING THE PERIOD OF 1860 TO 1925.

Year.	School Final.	Matriculation.	Previous.	First Examination in Arts.	First B.A. or Inter Arts.	First B.Sc or Inter Science.	B.A.	B.Sc.	M.A.
1860–61	..	86	..	..	..	..	..	..	..
1865–66	..	241	..	32	..	..	20	..	2
1870–71	..	877	..	132	..	..	60	..	4
1875	..	1,240	..	182	..	..	84	..	5
1880	..	1,260	255	150	..	2	100	..	7
1881	..	1,374	278	..	88	2	125	7	8
1885	..	2,262	487	..	246	2	92	3	10
1890	820	2,957	637	..	396	17	201	9	14
1895	1,603	2,981	816	..	443	29	211	20	20
1900	983	3,511	828	..	541	17	332	6	21
1905	681	4,008	1,225	..	632	39	478	12	63
1910	1,360	3,766	1,559	..	736	33	507	36	74
1914–15	1,548	4,214	2,613	..	1,185	91	486	34	110
1920	1,443	5,534*	2,598	..	1,452	268	1,013	114	68
1925	1,835	8,343†	3,484‡	..	2,060	984	997	318	111

* Out of 5,872 registered for the Joint School Leaving Examination.

† Joint School Leaving Examination ; includes 1,391 candidates who also appeared for Government Service.

‡ In March 1924.

APPENDIX No. 3 (*vide* Chapter IV).

Pros AND *cons* OF A PROPOSAL TO TRANSFER THE UNIVERSITY AND ITS COLLEGES TO SALSETTE.

For

1. It will enable the University of Bombay to become a truly residential and teaching as well as (if necessary) an affiliating university.

2. It will make possible the concentration of science teaching under a single organisation with great economy of expenditure and much more effective results.

3. It will make possible economy of undergraduate teaching both in Pass and Honours courses.

4. It will make possible the creation of an adequate and well co-ordinated school of post-graduate teaching.

5. It will take students away from the unhealthy conditions in which many live.

6. Students will be far less exposed to the moral temptations of life in a great city.

7. Residential accommodation could be provided for all who have not parents or near relatives in Bombay.

8. Those who can live with parents or near relatives can even now as easily go from Bombay to Salsette as they do at present from Salsette to Bombay: with electric railways transport will be still easier.

9. It will allow a great development of social amenities and intercourse between communities.

10. It will make it possible to require physical exercise and even physical training of all that are physically fit.

Con

(1) The University of Bombay must remain an affiliating university and is already as truly residential as it will be in Salsette. It is admitted that more than one-third of the students will continue to reside with parents, relatives and guardians.

(2) There is no need for a university hostel for women. A university hostel for post-graduates should be in Bombay since most of them must be earning a liveli hood while carrying on their studies.

(3) The University of Bombay already *is* a teaching university and by careful organisation of colleges in Bombay can be made even more so.

(4) If concentration of science is desired, it can be effected in Royal Institute of Science in Bombay.

(5) The economies at Salsette of labour in teaching under-graduates are small matters in regard to the less popular courses.

(6) The climate of Salsette is said to be as malarious as that of Bombay.

(7) It is unsound educationally to confine students within a cloistered life. They should rather be trained to live unharmed amid temptation and we cannot expect to exclude temptation even in Salsette.

(8) Life in hostels in a great university in Salsette is bound to be expensive and be beyond the means of the poor student.

(9) The transfer will cut off the staff and students from all the apparatus of learning stored in the public libraries of Bombay and will further prevent the staff from undertaking much work of a public or social nature in Bombay. They will feel isolated. Students will be deprived of much of the educational effect of living amidst the machinery of modern and especially western civilisation.

(10) From oral evidence it appears that the Principals and the staffs of both Wilson and St. Xavier's Colleges are opposed to such a transfer and will only consent most reluctantly. Beside the reason stated above in (9), the Wilson College staff object to being cut off from their other missionary work and associations.

(11) In any case the whole University cannot be transferred: The Grant Medical College must remain where it is. The College of Commerce and Law Class both urge that they must remain in direct contact with the business centre and the High Court respectively. The transfer will split the University still further.

(12) The transfer will make more difficult closer relationship with non-university institutions of learning, the public life, and commercial and industrial interests of the City of Bombay.

(13) The transfer involves the scrapping of buildings that are not to be easily disposed of, a great expenditure on stones and mortar, and a vast undertaking involving financial liabilities which it is not easy to foresee and estimate and for which there are absolutely no funds available, only vague promises of contributions.

(14) There will be legal difficulties in the disposal of the university buildings and public opposition to the destruction of so notable a piece of architecture as the Rajabai Tower and of a public amenity like the University Garden.

(VI) It is for the Committee to balance these two sets of weighty arguments and consider whether, when the educational arguments are thus equally poised, a scheme, whose financial character must be largely hypothetical, should be put forward to Government.

APPENDIX No. 4 (*vide* Chapter IV).

QUOTATION FROM THE REPORT OF ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON: SECTIONS 102-3.

(Printed in the pamphlet entitled "*The Essentials of a University in a Great Centre of Population,*" pages 43-6.)

102. *Advantages of Centralisation.*—Besides the necessity for a sound general education for all university students, and for homogeneity in the classes they attend, a third condition of satisfactory university work is that the teaching of the University in its several Faculties should be concentrated as far as possible in one place. We think the aim should be to bring the Constituent Colleges and University Departments together in one part of London, and group them round the central buildings of the University when they are not actually within its walls. Complete centralisation will not be possible. We do not suggest, for example, that the Imperial College of Science and Technology should be removed from South Kensington. But the policy to be kept in view and followed as opportunity occurs ought to be that of centralisation, and not that of dispersal in different parts of London.

In our Fourth Report we have explained the necessity for the provision of central buildings for the headquarters of the University, principally because of the importance we attach to the recognition of the University as a great public institution. But what we have chiefly in view here is rather the academic importance of centralisation, which we think is necessary if the University as a whole is to exercise its full influence upon all its members, and especially upon its students. Both University and King's Colleges made it a condition of incorporation that the University should, as far as its means and other duties permitted, maintain and develop the college as an institution in which wide academic culture might be secured by the variety of the subjects taught in different Faculties. As they were consenting to incorporation in a University which consisted of a large number of separately managed institutions, the stipulation they made was a wise one, and perhaps all that could be insisted on at the time, but it is not all that can be done in future with the same end in view. London, as a whole, cannot be made a university town like Oxford or Cambridge, where the University dominates the town and may consist of many separate colleges without losing its unity and identity. But we think it is quite possible to create a university quarter in London, in which the university life and interests would grow and develop, and students and teachers alike would find themselves in the atmosphere of a great seat of learning.

In addition to the regular professional and degree courses of the existing Faculties, new developments of learning and the exploration of questions lying on the boundaries that have hitherto divided different subjects of study lead from time to time to new groupings of subjects into courses to meet new requirements. The new department of Home Science and Economics, and the department of Imperial Studies which

has recently been proposed, are examples of what we refer to, and there will doubtless be more such developments in future. So long, however, as the work of the University is dispersed in different parts of London, it will be difficult to arrange for the establishment of new departments of studies by regrouping the existing teachers, though the power to do this is necessary if the University is to deal effectively with the demands of growing knowledge. The difficulty of making use of existing teaching and equipment will in turn lead to the establishment of separate institutions with independent administrative machinery and probably independent finance. Thus the present dispersion of effort and complication of government will constantly tend to increase. We think this is a mistake which would no longer be possible if the work of the University were properly organised, and a wide range of teaching and study, including practically all the highest teaching in Arts, Laws, and Economics and a large part of the teaching of pure Science, were centralised, and carried on in such close proximity as to constitute a university quarter in London. All new developments of learning would then naturally be organised within the University, with greater efficiency and economy than in separate institutions. They would share from the first the spirit and traditions of the University, and would contribute to its development.

103. *Geographical difficulty.*—As against such centralisation it may be said that the great size of London raises a geographical difficulty which can be met only by providing separate colleges in different parts of the metropolis. The waste of time, the cost, and the strain of daily travelling, are great, and we do not desire to minimise them, but the question is whether they are avoided by the only alternative to centralisation which is practicable. University Colleges, adequately staffed and efficiently equipped, and providing a wide enough range of study to secure academic culture for the students, are very expensive, and are not required for any large proportion of the population. Not more than three or four such colleges could probably be provided in London, or would be required for the students. Elementary education, and, to a large extent, secondary education, must be provided locally, and both technical and other higher education are required for evening students near where they live or work. But university education for those who can give their whole time cannot be provided in close proximity to the homes of more than a very small number of the students, because the proportion of university students to the population is so small that the area from which each college draws its students must be large. In London the students who attend a University College in the day time may be divided into three classes. Those who come from a distance and must live in London during the University terms; clearly there is no difficulty with regard to these students. They can live where they like, and if they do not choose to live near the University they can select a suburb which is easily accessible by rail. Secondly, those who live outside London and travel daily; these students also can probably go to a central University as easily, and possibly more easily, than to a college intended for some less central district of London

Thirdly, there are the university students who live at home in London. This is the only class of students who presumably would be more conveniently provided for by colleges established in different parts of London. But only a certain number of even this class will be really near the college, and direct means of access by rail or otherwise to the central part of London will in many cases make it easier and quicker to go a longer distance to a central college than to attend a college expressly meant for their district. Moreover, many other considerations affect and complicate the question; and, as a matter of fact, it is found at present that London students are only to a small extent influenced in their choice of a college by its situation. The scale of fees probably affects the question more than anything else. But the subjects it is desired to study and many other things also have their weight. On the whole we think there is practically no geographical problem in the case of full-time day students of the University; but even if there is some inconvenience to a few, we think the advantages of centralisation more than counterbalance any inconvenience that could be obviated by the establishment or retention of University Colleges in various parts of London. We therefore think that the policy of the University should be to concentrate its teaching in one part of London as far as circumstances allow. The creation of a university quarter would lead to economy in administration, to increased co-operation between different departments of study in the interests of new lines of work, to greater intercourse between students and between teachers, and it may be hoped it would also lead to a better public understanding in London of the University and its work. The University would begin to awaken general interest, and this interest would be followed by greater private and public support.

APPENDIX No. 5 (*vide* Chapter V).

ARGUMENTS FOR AND AGAINST ADDITIONAL UNIVERSITIES.

For

1. Bombay University is grown unwieldy and cannot efficiently
   (*a*) control its distant colleges,
   (*b*) examine its students,
   (*c*) secure representation of the mofussil interests on its administration.

2. A single Presidency University cannot represent or develop diverse local interests, and cultures. A local university will create enthusiastic study of local conditions of life, past and present.

3. The Bombay Presidency falls naturally into five linguistic areas and if a separate university was created for each of these a rapid development of the vernacular language and literature could be effected.

4. Linguistic universities will make possible the use of vernacular as medium of instruction and this will make the student's intellectual progress more rapid, more easy and more certain.

5. It makes university education less costly to the student by reduction of the distance to be travelled for attending college, examinations, etc.

6. It is more economic in university expenditure on travelling allowance. Bombay would save much in this respect.

7. Whether affiliating or not, the University organisation and administration being more homogenous and less extensive, will be more efficient.

8. So far from creating disunion, it would emphasise the need of co-operation and mutual understanding: and since there will be varied elements round each centre, it creates more centres and opportunities for welding diverse elements together.

9. There is a crying need for a residential university which Bombay University cannot be. The closer supervision, more regular discipline, greater opportunities for social intercourse, healthier and more moral conditions of life in a residential system are advantages that outweigh any increased cost or dislike of separation from the family. The experiment of one should be tried at least in one place.

10. Post-graduate teaching must be developed. If there is a single university, post-graduate teaching must be either concentrated in Bombay, which means neglect of local interests and cultures, and involves hardship for students: or developed at local centres in awkward conditions and with inadequate control and supervision. New universities provide escape from the dilemma.

11. Karachi and Poona are clear cases ; *Karachi* because of its distance, peculiar features of geography, life, climate, history, and special problems of agriculture and irrigation ; *Poona* because of its advanced state, number of colleges, etc.

12. Financing will be feasible if economy or a self-sacrificing spirit guides and too ambitious a scheme is not adopted to begin with : endowments will be forthcoming : Government aid may rightly be expected.

Against

1. The experience of the United Provinces is against it.

2. Difficulty of finding suitable persons to man local university administration, *e.g.*, Senate, Syndicate, Vice-Chancellor, etc.

3. Divisional universities will weaken national unity, begetting provincialism, especially if on a linguistic and vernacular basis.

4. There will inevitably be variations of standard.

5. There will arise competition between universities for students, with a resultant general lowering of standard.

6. It will cause concentration of University teaching in great towns which are less healthy and more expensive.

7. It will weaken mofussil colleges which have been valuable centres for promotion and wide diffusion of culture.

8. The objects desired can be obtained by a variety of other means, *e.g.*

(*a*) Retention of a single University of Bombay affiliating and examining but with a system of decentralised post-graduate teaching.

(*b*) Retention of a single affiliating university with decentralisation of its government by local senates.

(*c*) Concentration of post-graduate work in Bombay.

(*d*) Restriction of affiliated mofussil colleges to a few selected courses to suit local needs and interests and restriction of colleges in large centres to special subjects undertaken by agreement between the colleges and helped out by inter-collegiate arrangement.

(*e*) Special facilities to be given to the larger institutions at centres of linguistic areas for specialised work on subjects of local importance and for post-graduate teaching. They might ultimately develop into regional universities.

9. There is no sufficient evidence that the growth of Bombay University is beyond the resources of reorganisation.

(*a*) A higher standard of admission and stricter examination at First Year and Intermediate would remove many unfit students.

(*b*) The number of undergraduates is by no means large.

(*c*) Restriction of numbers in *all* colleges would make for a more even distribution and for more effective tuition.

10. It means a great multiplication of expenditure on administrative and educational organisation and buildings. The expenditure could more usefully be devoted to a better equipment of existing institutions or development of new ones.

11. The proposed centres have, with the exception of Poona, shown no genuine local demand and made no attempt to provide the requisite organisation.

12. No funds have been collected or even promised for endowment of the new universities. Reliance is placed wholly on,

(1) Government grants,

(2) Conversion of Government College funds to University purposes, which involves diminution of the number of undergraduate institutions.

13. Government is pledged to devote its funds principally to primary education and will have little or no money for financing new universities.

14. New universities mean universities on a linguistic and vernacular basis. Use of vernaculars for instruction in university education is fraught with great practical difficulties especially

(*a*) in examinations,

(*b*) in bi-lingual districts,

(*c*) in Indian states.

15. Government will be placed in the awkward position of having to decide between competing claims of Universities on its finances and between jealousies likely to arise.

16. It is urged that it is desirable to try the experiment of a unitary residential teaching university : but

(1) It will be an experiment and might fail disastrously.

(2) The experiment is already being tried and so far has supplied no decisive proof. It would be better to await results elsewhere, *e.g.*, at Dacca and in the United Provinces.

(3) No university is wholly residential in the sense that all students have to live in hostels or college. Residence is more costly to the student in India. The modern tendency is for a university to become less residential.

(4) Establishment of the unitary system involves the virtual destruction of the individuality and history of the colleges.

17. Unless the new universities are also affiliating, their creation will deprive Bombay University of considerable revenue and will not relieve it of the difficulty and expense of controlling remote colleges.

APPENDIX No. 6 (*vide* Chapter VI).

SHIKSHAVICHAR MANDAL'S SCHEME AND ESTIMATE FOR A UNIVERSITY AT POONA.

12th January 1925.

To

The Secretary, University Reform Committee, Bombay.

Sir,

When I presented myself for oral evidence before your Committee, on the 10th of November, I was asked to submit further details—especially financial—about our scheme for a university at Poona. I am sending these details herewith.

As far as we are able to judge from the statements issued by you to the press we find the evidence is preponderatingly in favour of a university at Poona. The dissenting group is so small that it can be safely ignored. However men often note exceptions and magnify them out of proportion and we propose to answer here, very briefly, some of the objections raised against the proposed university.

1. The representatives of the three moffusil Colleges—Sangli, Dharwar and Kholapur—object to the establishment of additional university centres on certain grounds. On reading between the lines it is easy to see that they are afraid that additional universities will necessarily bring for them an inferior status. This will especially be the case if an attempt is made to create a residential teaching university in Poona. We suggest therefore that an assurance be conveyed to them that no attempt will be made by the Poona University to make these colleges second grade colleges or confine their work to pass courses only. This answer is implied in the scheme submitted by the Mandal. They are further allowed to develop post-graduate centres in some subjects with a view to convert themselves into university colleges giving their own diplomas in those subjects.

2. There are others who believe that the University of Poona will confine itself within the narrow enclosures of Marathi. These fears are absolutely groundless. The immediate step towards vernacularization that is contemplated is the introduction of vernaculars as the media of examination for the Matriculation. A few enthusiasts would like to, introduce them even in the colleges but this is hardly possible in the near future. Again there is no reason to fight shy of it. Poona has been under British influence for over a hundered years and has drunk deeply at the fountain of English education. We laugh at the Bombay cosmopolitan when he gravely suggests that English education will be scared out of the Poona University by Marathi enthusiasts. We wish to assure him that we in Poona realise the importance of English education as much as they do in Bombay. If ever we discover that our enthusiasm for vernaculars

is coming in the way of the spreading of western education we will immediately cry halt and re-examine our position. Poona is highly obliged to Bombay for the care and nourishment given to it during the last seventy years, but the province has now grown and desires freedom and initiative. It is possible the province will commit mistakes; but that is the right of every youngster who wants to stand on his own legs. We hope Bombay, like an intelligent parent, will, with good grace, allow its major child the freedom so essential for its growth.

3. The idea that Poona will lose opportunities of mixing with other people and develop narrow provincialism is also without any foundation. Because a separate university is established in Poona, we do not think there will be any noteworthy migration in the colleges, whose student-population will remain fairly constant. The Bombay University has been a great unifying influence but not because it brings students of different provinces and different creeds under the same roof. It seldom does it. Its unifying work is the result of the spread of English education and this the University of Poona will certainly continue. Let us further point out that provincialism is no crime. One must know where the interests of the province are to be subordinated to those of the nation; circumscribed by such limits provincialism may be a great virtue.

4. There are some who would not have a replica of the Bombay University. They would have nothing less than a Cambridge in Poona. But Cambridge is made what it is by its professors, and before we aspire to have a Cambridge in Poona we must raise the level of our professors to that of the professors at Cambridge. The right solution, for the present, is to establish an affiliating university in Poona with an efficient postgraduate department. This will necessitate a certain amount of co-ordination of the teaching in at least the three Arts colleges which may serve as the basis of the development of the Poona University into a residential teaching university ten years hence.

5. It is suggested by some again that under the present financial strain it would be wiser to concentrate what funds we can spare on the Bombay University and not waste them in duplicating the machinery in Poona or Ahmedabad. This appears quite prudent at first sight. But a small investment in creating additional university centres in Poona and Ahmedabad may prove profitable, as they will be able to tap new sources of endowments, sources which will ever be out of the reach of the University of Bombay. This should have been done long ago but it would be improper to postpone the step any longer. As we have said elsewhere, give these places sound nuclei and leave it to them to build structures round these nuclei. Provincial patriotism will enable them to do it.

6. The multiplication of University centres in U. P. has, it is said, lowered the standard of University education in that province. We have no basis to judge what truth there is in the charge. But it is wrong to deduce from this that aditional universities in this Presidency will do the same. It is bad logic. The multiplication of university centres in U. P. was perhaps not so urgent as it is in Bombay and the centres chosen were not as developed as Poona is.

7. It is stated again that the Poona University Senate will be a honeycomb of disputes, between different sections, communal or political. We shall not say the fears are quite imaginary but the evil is greatly exaggerated. The university men have been mostly free party squabbles. Even when they identify themselves with a section, they generally try to keep these distinctions out of the portals of the temple of learning. We will not be surprised to discover an unexpected unanimity in the Senate when different parties are brought together and are held responsible for the successful conduct of the University, because we shall be dealing here with the intelligent sections of the society. Supposing however the worst fears come out to be true, we should be prepared to face the situation and march ahead and not hold back a step so important and essential for the progress of the Presidency.

M. R. PARANJPYE,
Honorary Secretary.

A Scheme for the proposed University at Poona.

1. *Territorial Limits.*—The Marathi-speaking districts in the Bombay Presidency, *i.e.*, the districts of Poona, Satara, Sholapur, Ahmednagar, Nasik, Khandesh (East and West), Ratnagiri, Thana (excluding Bombay Suburbs), Kolaba, Belgaum, Kolhapur and the other Southern Maratha States like Sangli, Miraj, Jamkhandi, and States like Bhor, Aund, Sawantwadi.

This means the University cannot affiliate a college situated outside these limits. We propose, however, it should be open to the University to recognize Marathi schools anywhere in the Presidency. Thus a school in Karachi for Marathi boys, schools in Baroda or Schools in Bombay Town which are attended by Marathi boys may, if they choose, seek affiliation to the Poona University. The concession must necessarily be mutual and non-Marathi schools in Poona or Satara or Sholapur may, if they choose, seek affiliation to Bombay or Ahmedabad.

II. *The institutions affiliated to the Poona University will be :—*

1. The Deccan College, Poona.
2. The Fergusson College, Poona.
3. The New Poona College, Poona.
4. The Rajaram College, Kolhapur.
5. The Willingdon College, Sangli.
6. The Nasik College.
7. The Amalner College.*
8. The Engineering College, Poona.
9. The Agricultural College, Poona.
10. The Law College, Poona.
11. The Medical College, Poona.*
12. The Teachers' College, Poona.
13. The Bhandarkar Oriental Research Institute, Poona.
14. The Bharat Itihasa Samshodhaka Mandala, Poona.
15. The Ranade Economic Institute, Poona.

The number of recognised high schools will be 75 to 80. *Proposed.

III. *The Constitution of the Senate.*—This should be framed by a committee of persons who have a more intimate knowledge of this question. We would, however, make the following suggestions.

The Senate should consist of from 80 to 100 members of whom 20 will be elected by professors and teachers in the affiliated Institutions, 20 by registered graduates, 10 by faculties, 5 by registered High Schools, 5 by donors, and the rest will consist of full-time University Professors and members nominated by the Chancellor (not exceeding 20). The Vice-Chancellor will be elected by the Senate.

IV. *The Post-Graduate Department.*—Among the present staffs of the Colleges proposed to be affiliated to the University of Poona, it is possible to find suitable persons fit to occupy the following chairs.

1. Mathematics; 2. Sanskrit; 3. History; 4. Economics, and 5. Marathi; and we propose full-time professors should be appointed to these chairs. The conditions for the appointments will be :—

(*a*) No one shall be appointed a full-time University Professor unless he belongs to the staff of a college affiliated to the University.

(*b*) The average salary of a full-time University Professor shall, for the present, be Rs. 500 per month.

This is higher than that received at present by professors working in non-Government colleges. When professors are selected from Government colleges to occupy these posts, they will also be paid this very salary by the University and it is suggested that Government should make up the difference; so that the persons chosen will not suffer any pecuniary loss.

(*c*) The appointment of a University Professor shall be for three years only and may be renewed by the Senate, on the strength of the research work done by the professor and his students during these years.

(*d*) While the services of these persons are lent to the University, the University shall contribute to the provident and pension funds to the colleges where they would otherwise be. These contributions will be calculated on the pay they would have received in their respective Colleges.

V. Besides the above chairs, it is possible to establish chairs in Philosophy, Pedagogy (Experimental Psychology), Chemistry, Botany, Persian, Urdu, English Literature, Philology as also additional chairs for special branches of different subjects, such as Ancient History, Mediæval History, Prakrit, Pali, etc. Men are not probably available immediately who can be put in these chairs as full-time workers, and we suggest we should have a large number of part-time workers in the beginning. They should be appointed on the following conditions :—

(*a*) The college where they are working should promise not to give them more than six periods' work in a week.

(*b*) They should deliver a set of lectures under the auspices of the University, (1) for the use of the students reading for the Master's degree (twenty-four lectures in a year) and (2) for the public (six lectures in a year).

(*c*) They should also help the post-graduate students at the University by spending on an average at least an hour per day with them.

(*d*) They shall be paid Rs. 250 p.m. (including carriage allowance); there will be no provident fund and other contributions on their account.

(*e*) Their appointments shall be for two years only and may be renewed by the Senate on the strength of the research work done by them and their students in these two years.

(*f*) The part-time workers may be chosen if necessary from among persons who are not working in any college affiliated to the University.

(*g*) The University Professors, full-time or part-time, will as a rule be in Poona, the central place. But if a moffusil college shows promise of development in a particular subject, some part-time appointments may be made at this college also. The condition for this will be not only the presence of a qualified person but that of the requisite number of students and the necessary library equipment.

This division into full-time and part-time workers is intended only as a preliminary step. As the department develops and there is need for more full-time workers, most of these part-time professorships will be converted into full-time professorships. However even at this stage we may find it wise to retain the division, as it would serve as a valuable instrument for training men in research habits.

VI. *Special Professors.*—It is open to the University to make special temporary appointments on special terms.

The above may be ridiculed by some who probably think it absurd to talk of starting a university, without at the same time making provision for recruiting a number of men from outside India. The level of students, it is urged, can never be higher than the level of their teachers and if we want to produce good students from Poona University, we must supply good teachers to the colleges. This is partly answered in an article in the January number of *Progress of Education* (copy attached herewith). The present staffs are not likely to change for a generation, and instead of ignoring them we should make a serious attempt to find out if some of the members of the present staffs cannot show better work. We think they can and they will, if they are given the necessary incentive and the necessary leisure.

VII. *Foreign and other Scholarships.*—With this end in view we suggest the University should found three foreign scholarships each

of Rs. 500 p.m. tenable for three years, open only to the members working in a college affiliated to the University. The persons so chosen shall be granted by the college leave on full pay—if it be less than Rs. 500.

One scholarship will be available per year. We suggest that the first four scholarships should go to the members of the Fergusson and the New Poona Colleges, who would specialise in Pedagogy, if the D. E. Society and the S. P. Mandali promise to conduct a Secondary Teachers' College in co-operation. We consider such a College a great necessity.

The foreign scholarship shall be treated as loan advanced if the scholar, after returning, leaves the University before putting in five years' service in a college affiliated to the University.

Junior and Senior Scholarships mentioned hereafter are for the students working in the Post-Graduate College. These may be given to the College Fellows in different Colleges but not in addition to the Fellowships. The College Fellow who gets the scholarship will have to forego his Fellowship.

VIII. *Basis for calculating the Budget.*

The numbers of students that appeared for various examinations in 1923-24 from Schools and Colleges situated in Marathi-speaking districts were—

Matric	3,215	out of	8,305	38·7	per cent.
F. Y. A.	1,095	,,	3,636	30·0	,,
Inter Arts	656	,,	1,872	35·0	,,
B.A.	350	,,	1,114	31·4	,,
M.A.	32	,,	68	47·0	,,
I.Sc.	280	,,	741	37·0	,,
B.Sc.	55	,,	177	31·0	,,
M.Sc.	4	,,	15	26·6	,,
F.E.	72	,,	143	50·0	,,
S.E. (Civil)	63	,,	89	70·7	,,
B.E.	83	,,	83		
S.E. (Mechanical)	10	,,	10		
B.E. (,,)	18	,,	18		
M.C.E.	2	,,	2		
Inter. Ag.	46	,,	46	100	,,
B. Ag.	68	,,	68		
M.Ag.	4	,,	4		
Medicine and Commerce.	*	,,	3,000		
	6,071	,,	19,409	31	per cent.

*To this number will be added in 1925, the students from Nasik College (about 200) and those from the Law College at Poona (about 450). Further the number will grow if the Amalner College and the Medical and Teachers' Colleges in Poona materialise.

It is therefore no great risk to proceed on the assumption that the fee receipts will not be less than 33 per cent. of the fee receipts of the Bombay University.

The expenditure for examination will be proportionately decreased but there cannot be much reduction in the office expenditure.

It will be seen from the figures given below that the expenditure on the Post-Graduate Department will be approximately Rs. 1,40,000. We propose this should be given by Government as a grant to the University. This is approximately the sum spent on the Deccan College; hence our proposal to convert the Deccan College into a Post-Graduate Institution. This we understand was also the proposal made by Principal Wilkinson when he retired from the Deccan College.

We do recognize that what is suggested above is a very small beginning and that it must be expanded four times at least. But this would mean four times more expense and Government cannot make this large sum available at present. This extension therefore should be made possible by securing endowments.

It is suggested in some quarters that these endowments should be secured first and the University should come afterwards. This is not possible in Maharashtra. Maharashtra can raise funds in small amounts only. Money will flow in freely when real good work is shown and it will come not only from Maharashtra but also from other provinces. But it will be extremely difficult to raise even a few thousands to support hypothetical institutions.

Give Maharashtra a sound nucleus and a handsome structure will surely grow round it in a generation.

N. B.—If a University is established in Poona, the Agricultural and the Engineering Colleges must be affiliated to the Poona University. If they be allowed to continue their affiliation to Bombay, as is occasionally suggested, it means the Poona University is started with a hall-mark of inferiority and distrust and no self-respecting citizen of Poona would accept the situation. Further it will ever be a serious obstacle in the way of development; for the University can in that case never have faculties of Agriculture and Engineering. The University of Poona may be asked if necessary to guarantee that outsiders will be admitted in these colleges as heretofore and that no fresh obstacles will be placed in their way. Really speaking no such guarantee is necessary; for these colleges are controlled by Government and the University will have nothing to do with the admissions to these colleges except by way of fixing the entrance qualifications.

THE UNIVERSITY BUDGET.

RECEIPTS.

Items.	Actual Bombay, 1923-24.	Estimated Poona.
	Rs.	Rs.
Fees from candidates for University Examinations other than the Matriculation ..	2,84,285	94,760
Contributions from the Joint Board, *i. e.*, savings from the Matriculation	65,000	22,000
Fees for College First Year ..	13,790	4,590
Fees for Registration, Degrees, etc.	about 28,000	5,000
Government grant for ordinary University expenditure ..	....	25,000
Government grant for the Post-Graduate College ..	....	1,40,000
		2,91,350

EXPENDITURE (RECURRING), ORDINARY.

Examination charges ..	1,65,710	55,270
Establishment	33,375	30,000
Printing and Advertisement ..	21,825	20,000
Fellows' Travelling allowances ..	32,229	20,000
Stationery	8,332	8,000
Mandap charges (Bombay, 5,416, Moffusil 3,023)	8,439	2,000
Postage	1,900	1,500
Repairs to Building	5,950	5,000
Electric light	1,156	1,000
Insurance to Building ..	3,832	3,000
Miscellaneous	about 7,000	5,000
		1,50,770

EXPENDITURE (RECURRING), POST-GRADUATE DEPARTMENT.

Five full-time University Professors at Rs. 500 p.m.	2,500×12	=30,000
Ten part-time University Professors at Rs. 250 p.m.	2,500×12	=30,000
Ten Senior Scholars at Rs. 100 p.m.	1,200×12	=14,400
Ten Junior Scholars at Rs. 75 p.m.	900×12	=10,800
Three Foreign Scholarships at Rs. 500 p.m.	1,500×12	=18,000
Library :—Journals 2,000, Books 12,000, Cupboards 1,000		=15,000
Publication Department		=3,000
Grants to workers in moffusil centres		=2,000
Librarian 250 p.m., clerk 100 p.m.; menials, 120 p.m.,	470×12	=5,540
Provident fund, etc.		=7,500
Miscellaneous		=2,000
Contingency, Stationery, etc.		=2,000
		1,40,240

NON-RECURRING EXPENDITURE.

	Rs.
Site for the University Buildings	2,00,000
University Offices	1,00,000
,, Library	3,00,000
,, Post-Graduate College	7,00,000
,, Lecture Theatre	2,00,000
Hostel accommodation for Post-Graduate students (50)	1,00,000
Professors' Bungalows	3,00,000
Library equipment	3,00,000
Laboratory Equipment (includes Science Journal sets) at the Fergusson, Agricultural and Engineering Colleges (if these Colleges are prepared to pay the current expenses for research)	3,00,000
	25,00,000

* These are not necessary if the Deccan College buildings are available for the use of the University.

APPENDIX No. 7 (*vide* Chapter VI, para. 69).

LETTER FROM DR. GANGANATH JHA, D.LITT., OFFICIATING VICE-CHANCELLOR, ALLAHABAD UNIVERSITY.

Dear Sir,

Your letter of the 4th instant.

The weakest point that we have found in our reformed constitution lies in our mixed character. We have two sides: an Internal side consisting of the Teaching University itself and an External side consisting of all the colleges that were affiliated to us under our old constitution. For the two sides our Act has set up two distinct sets of bodies, culminating however in a common Academic Council, Executive Council and Court; and it has been my sad experience that there is an inevitable jealousy between the two sides which hampers progress at each step. As regards the details, what we are suffering from is a multiplicity of committees and councils. Instead of leading to efficient despatch of business this is proving a source of much confusion and delay.

I am sending herewith a copy of our Act, Statutes and Ordinances for purposes of reference.

Yours sincerely,

18th August 1924. (Signed) GANGANATH JHA.

APPENDIX No. 8 (*vide* Chapter VII).

REVISED SCHEME OF UNIVERSITY POST-GRADUATE STUDIES, APPROVED IN 1924.

If it is hereby notified that Government have accorded their approval to the following regulations regarding a revised scheme of University post-graduate studies adopted by the Senate :—

1. The aim of the University should be to award the Master's or Doctor's degree in recognition of satisfactory original research work wherever this is possible. For the present, the present system of testing the efficiency of candidates by means of examination should continue, but that of doing so by the character of original research produced should be introduced whenever this is possible, and, in such cases, the two should run side by side till the time is ripe for the complete elimination of the former system.
2. The University should be the initiating and directing body in the development of the new system of post-graduate work.
3. In organizing the work, the University should invite the co-operation of Colleges in the teaching and direction.
4. The lines of post-graduate work which are ripe for development in the new direction are (in addition to Sociology and Economics in which the University already has a school which would work in with the present scheme) (1) Sanskrit and the allied languages, (2) History, more especially Indian History, (3) possibly Mathematics.
5. If this general scheme be adopted, the sections of the University Library concerned with the needs of research students in the subjects whose development is undertaken will, of necessity, have to be strengthened.
6. In order to carry out its initiating and directing duties, the University should appoint a Board of Management and a Board of Post-graduate Studies; the former would be responsible for the regulation of the business side of the scheme; the latter, which would consist of the Professors of the University, of the Colleges and of others who are prepared to assist in some measure in the work of students, would either through individuals or sub-committees make arrangements for the direction and supervision of the actual work. The Syndicate would appoint both these Boards.
7. Though the scheme would be launched in the first place in Bombay, nothing should prevent the recognition of a mofussil Professor as a University teacher under the scheme, if he is prepared to fulfil the conditions required of him by the Board of Post-graduate Studies.

8. Any student who wishes to appear for the Master's degree by research, would have to be registered as a research student under this scheme, and the conditions under which he is to work would have to be approved by a competent authority appointed by the Board of Post-graduate Studies.

9. The Syndicate should set apart for the purposes of this scheme a sum of Rs. 24,000 per annum in the first instance. As it would absorb the present provision of Rs. 7,000 for post-graduate lectures, it would mean an additional cost of Rs. 17,000 per annum. If it develops, much more money would later be required. This would be in addition to the provision made for the Library.

10. The University buildings would be the centre for the new organization.

11. The scheme does not contemplate, in the first stage, the employment of any whole-time Professor or Lecturer by the University, except in its own School of Economics and Sociology. It is clear, however, that the natural development of the scheme will be towards the establishment of similar University research schools in other subjects whose development is undertaken.

12. It is expected that in the first instance there will be not more than twenty post-graduate research students in each of the subjects whose development is undertaken, including those dealt with in the present University schools.

13. So far as the University teachers under the scheme are members of the staffs of the Colleges, negotiations regarding their appointment should be made through the College concerned, and any remuneration it is decided to pay should be paid to the College.

14. The following regulations have been adopted in the matter of post-graduate training by research :

Post-graduate University training in Arts.

(1) The University shall undertake the post-graduate training of students by research and students who have been registered under this scheme of training shall alone be able to take the degree of Master of Arts by research, as provided for in the regulations for this degree.

(2) The control of this post-graduate research training, including that in the University's School of Economics and Sociology, shall be vested in a Board of Management, to be appointed annually by the Syndicate, consisting of nine members. This Board shall be responsible for the allotment of the funds assigned for this purpose by the University and for the general business management, subject to the sanction of the Syndicate.

(3) The actual research work shall be done under the direction of a Board of Post-graduate Studies, which shall be appointed by the Syndicate and shall consist of the Professors of the University and of Professors selected from Colleges, and of others who are prepared to assist in the research work.

(4) The subjects in connection with which the organization of such post-graduate studies by research shall be made at present are (*a*) Economics, (*b*) Sociology, (*c*) Sanskrit and the allied languages, (*d*) History, more especially Indian History, (*e*) Mathematics.

(5) The Board of Management shall submit to the Syndicate in November each year its Budget proposals for the following academic year.

(6) Any student who wishes to appear for the M.A. or post-graduate degree by research, must be registered as a research student under this scheme, and the conditions under which he is to work must be approved by a competent authority appointed by the Board of Post-graduate Studies.

(7) The University buildings will ordinarily be the centre for the organization of post-graduate training by research, but the Board of Post-graduate Studies may approve of any arrangement proposed in any particular case.

By order,

FARDUNJI M. DASTUR,

Bombay, 3rd November 1924. University Registrar.

APPENDIX No.

Number of students appearing in 1924 from the

No.	Name of College.	F. Y. 1924.	I. A.	B. A.	M. A.	I.Com.	B. Com.	B.T.	I. Sc.	B.Sc.	M. Sc.	I. Ag.	B. Ag.
1	Elphinstone College	116	65	54	6	..	..	..	56	18	..	..	..
2	Deccan College ..	120	45	50	9	..	..	..	..	..	..	..	..
3	Wilson College ..	287	144	64	9	..	..	..	95	26	..	..	..
4	St. Xavier's College	543	179	83	5	..	..	..	85	21	..	..	..
5	Gujarat College ..	267	108	31	..	..	..	..	48	6	..	..	..
6	Rajaram College ..	203	103	30	1	..	..	..	..	..	..	..	..
7	Baroda College ..	321	161	63	1	..	..	..	74	20	..	..	..
8	Fergusson College ..	224	140	116	10	..	..	..	264	48	..	..	..
9	Samaldas College ..	87	44	14	3	..	..	..	..	..	..	..	..
10	D. J. Sind College ..	214	66	29	1	..	..	..	68	7	..	..	..
11	Bahauddin College ..	127	58	24	1	..	..	..	..	..	..	..	..
12	New Poona College	246	128	40	10	..	..	..	..	..	..	..	..
13	Karnatak College ..	215	104	54	2	..	..	..	..	..	..	..	..
14	M. T. B. Arts College	135	53	14	1	..	..	..	..	..	..	..	..
15	Willingdon College ..	235	122	40	2	..	..	..	..	..	..	..	..
16	H. P. Thakersy College, Nasik ..	..	..	..	..	..	..	..	..	..	..	..	..
17	Hyderabad (Sind) N.	91	16	..	..	..	..	..	..	..	..	..	..
	Ex-students ..	205	330	167	..	..		..	51	31	15	..	..
	Total ..	3,636	1,872	873	*61	..	..	..	741	177	15	..	..
18	University School of Economics ..	..	..	..	*3	..	..	..	..	..	..	..	..
	Post-graduate students ..	..	..	..	42	..	..	..	..	..	..	..	..
19	Sydenham College of Commerce and Economics ..	..	..	..	106 ..	137	48	..	..	..	..	..	..
20	Sec. Training College ..	..	..	..	..	..	..	60	..	..	..	..	..
21	Agricultural College	..	..	..	..	..	..	..	..	..	..	46	68
22	Engineering College	..	..	..	..	..	..	..	..	..	..	..	..
23	N. E. D. College, Karachi ..	..	..	..	..	..	..	..	..	..	..	..	..
24	Grant Medical College ..	..	..	..	..	..	..	..	..	..	..	..	..
25	Government Law School ..	..	..	..	..	..	..	..	..	..	..	..	..
26	Poona Law College..	..	..	..	..	..	..	..	..	..	..	..	..
	Total number examined ..	3,636	1,872	873	106	137	48	60	741	177	15	46	68

* This number represents the

9 (Chapter VII).

various Colleges at the University Examinations.

M. Ag.	F.E.	S. E.	B. E. (Civil and Mech.)	M.C. E.	1st LL.B.	2nd LL.B.	LL. M.	Int. M.B., B.S.	M.B., B.S.	B. Hy.	M.D.	M.S.	Name of College.
..	..	..	..	..	..	..	..	..	..	..	..	..	Elphinstone.
..	..	..	..	..	..	..	..	..	..	..	..	..	Deccan.
..	..	..	..	..	..	..	..	..	..	..	..	..	Wilson.
..	..	..	..	..	..	..	..	..	..	..	..	..	St. Xavier's.
..	..	..	..	..	..	..	..	..	..	..	..	..	Gujarat.
..	..	..	..	..	..	..	..	..	..	..	..	..	Rajaram.
..	..	..	..	..	..	..	..	..	..	..	..	..	Baroda.
..	..	..	..	..	..	..	..	..	..	..	..	..	Fergusson.
..	..	..	..	..	..	..	..	..	..	..	..	..	Samaldas.
..	..	..	..	..	..	..	..	..	..	..	..	..	D. J. Sind.
..	..	..	..	..	..	..	..	..	..	..	..	..	Bahauddin.
..	..	..	..	..	..	..	..	..	..	..	..	..	New Poona.
..	..	..	..	..	..	..	..	..	..	..	..	..	Karnatak.
..	..	..	..	..	..	..	..	..	..	..	..	..	M. T. B. Arts.
..	..	..	..	..	..	..	..	..	..	..	..	..	Willingdon.
..	..	..	..	..	..	..	..	..	..	..	..	..	H. P. Thackersy Nasik.
..	..	..	..	..	..	..	..	..	..	..	..	..	Hyderabad (Sind) N.
..	..	..	..	..	..	..	..	..	..	..	..	..	*Ex*-students.
..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	University School of Economics.
..	..	..	..	..	..	..	..	..	..	..	..	..	Post-graduate students.
..	..	..	..	..	..	..	..	..	..	..	..	..	Sydenham College of Commerce and Economics.
..	..	..	..	..	..	..	..	..	..	..	..	..	Sec. Training College.
4		..	..	..	..	..	..	..	..	..	..	..	Agricultural College.
..	72	73	76	2	..	..		..	..	..	..	..	Engineering College.
..	71	26	..	..	..	..	..	..	..	..	..	..	N. E. D. Civil Engineering College.
	143	99	76	2									
..	..	..	..	..	..	..	..	306	308	11	8	4	Grant Medical College.
..	..	..	..	..	607	320	5	..	..	..	..	..	Government Law School.
..	..	..	..	..	..	..	..	..	..	..	..	..	Poona Law College.
4	143	99	76	2	607	320	5	306	308	11	8		Total number examined.

number of successful c ndidates only.

APPENDIX No. 10 (*vide* Chapter VII).

Number of candidates at University Examinations by subjects (March and April, 1925).

Subject.	First Year, 1924.	Inter Arts, 1925.	B.A. Compulsory, 1925.	B.A. Pass, 1925.	B.A. Honours, 1925.	Inter Science, 1925.	B. Sc., 1925,	M.A., 1925.	M.Sc., 1925.
English ..	3,484	*2,060*	997	294	115	..	....	51	..
Sanskrit ..	2,504*	1,158	..	238	115	..	....	31	..
French ..	323	157	..	32	5	..	....	10	..
Persian ..	534	349	..	53	20	..	....	3	..
Latin ..	114	55	..	5	1	..	....	1	..
Avesta Pehlavi ..	32	11	..	..	3	..	....	..	..
Pali ..	5	10	..	1	..	..	....	2	..
Hebrew ..	4	5	..	1	..	..	....	..	..
Ardha Magadhi	..	9	..	..	..	..	....	2	..
Portuguese ..	3	1	..	..	..	..	....	..	..
German ..	5	2	..	..	1	..	....	..	..
Arabic ..	3	3	..	..	..	..	....	..	..
Other languages	11	..	..	..	..	..	....	..	..
Gujarati ..	..	..	..	17	..	..	....	8	..
Kanarese ..	..	..	..	39	..	..	....	7	
Urdu ..	..	..	..	9	..	..	....	4	..
Marathi ..	..	..	..	79	..	..	....	15	..
Logic ..	..	1,650	..	..	..	..	....	..	..
Mathematics ..	3,484	410	..	27	33	629	Prin. 80 Subsid. 6	4	1
Physics ..	3,484	..	..	27	44	984	Prin. 23 Subsid. 103	..	..
Chemistry ..	..	..	..	27	44	984	Prin. 171 Subsid. 11	..	..
Biology ..	..	..	..	5	2	355	Prin. 21 Subsid. 38	..	..
Zoology ..	..	..	..	..	..	..	Prin. 5 Subsid. 7	..	..
Geology ..	..	..	..	..	..	..	Subsid. 11	..	..
Philosophy ..	..	..	..	84	38	..	....	15	..
History ..	..	..	..	389	148	..	....	26	..

* Includes ex-students.

APPENDIX No. 11. (*Vide* Chapter IX.)

REPORT OF THE SYNDICATE'S COMMITTEE ON COLLABORATION BETWEEN THE BOMBAY UNIVERSITY AND THE BOMBAY CITY.

The Bombay University was established sixty-five years ago in order to foster the development of intellectual culture among the growing generation of Western India, and on the whole it has well fulfilled the purpose for which it was founded. It has popularised higher education, has brought it within the reach of almost every class of the community, and has, indirectly it is true, made the ideal, of a large well-informed public, one which seems much nearer to realisation than it was a generation ago.

But the prevalent conception of a university has widened far since the Bombay University was established. Now, in many parts of the world, a university is felt to be the representative of the intellectual side of a community's progress, to be, in fact, not a thing apart from the general life of the community, but right at the heart of any movement of advance. Hence the university is called upon to lead in the spread of knowledge into new fields, in the actual increase of knowledge necessary to development, and in the creation of that bond between those who are pressing forward in the mutual development of the city and country, and those who insist that material development must be accompanied, at least to the same extent, by moral, intellectual, and æsthetic progress.

It is the realisation that, without something which the university can do, the whole community will develop in a one-sided manner, and give a discontented and unhealthy population with a low outlook, living in an ugly and depressing environment, that has very largely led to the newer university movement in the West, and has brought the successful manufacturers and merchant princes of the West to endow all that the university stands for in a manner unthought of until a few years ago. The university should, in fact, be no longer regarded as the home of intellectual recluses engaged in education and in the study of things apart from national and city life, but as a place pulsating with life, as taking its share in city and country development, and as bringing to bear on the problems of the day all the resources of knowledge acquired elsewhere, and of methods of study available in any part of the world.

There is no doubt that this is needed here in Western India at least as much as anywhere in the world; and the time has come, here as elsewhere, to enter into closer co-operation with the business world, and with the civic leaders, for the development of the community as a whole. The present seems almost a unique opportunity for doing so. The University has established for the first time a school for the study, on the highest plane, of the community and its development, and this, it is hoped, will be the commencement of the co-operation of which we speak. It cannot, however, be, unless the thorough interest of the civic leaders and the business world is aroused,—nor unless the university leaders are far more alive than ever before to what must be if they are to take their share in the advance which we all hope to see in our time.

The attached memorandum giving an idea of what the university can do has been prepared by Professor Patrick Geddes at the request of a committee appointed by the University Syndicate, and it indicates something of what can be done if both City and University combine in this matter. It shows something of the big outlook there will be if complete and hearty co-operation is achieved. This, on the university side, would show the opening generation that they are part of an advancing community, and would also show that they can contribute to advance on the best lines and to avoid the pitfalls of the past. It would also indicate where mistakes are being made for lack of knowledge, and how to get the knowledge to avoid these mistakes. And it would make the university's greatest pride to be that it can help in the formation of a great community.

This big outlook must also appeal to the business men and the civic leaders. These are, we believe, equally desirous of creating a great community, in whose development, as a whole, they can be proud to take a part. If this is so, there must be a *rapprochement* between them and the university. And now seems to be the time for such *rapprochement* to be taken in hand. If successful, the University and its associated institutions both present and projected—as very well outlined in Professor Geddes' memorandum attached—will be proud to serve the City's development, and to modify its work in any way so as to serve it better. But the advance we have in view must go on. It can only take place by close co-operation between the business men, the civic leaders, and the university. Such co-operation is wanted now. And hence the Committee would strongly urge that the University, at once, should take, as its most urgent business, steps to get together representatives of those most concerned on every side to make this co-operation real, and so to assist in the advance which this note has in contemplation.

With that view one of the urgent measures the Committee would like the Syndicate to take, should be to recommend to the Senate that in the re-organisation of the constitution of the Senate which is under the consideration of Government at present, the percentage of Ordinary Fellows representing the trade, industrial and other business interests be raised from 10 per cent. already adopted and recommended by the Senate, to 20 per cent. and that early effect may be given to the suggestion by filling up future vacancies whenever possible by such nomination even under the present constitution.

APPENDIX No. 12. (*Vide* Chapter XII.)

THE UNDERGRADUATE COURSES RECOMMENDED BY THE UNIVERSITY REFORM COMMITTEE.

First Year and Intermediate (two years).

Arts.

(1) English Language and Literature.
(2) A Second Language, either.

(*a*) *Classical:* Greek, Latin, Sanskrit, Persian, Arabic, Hebrew, Pali, Avesta Pahlavi, Ardha-Magadhi;

or

(*b*) *Modern European:* French, German, Portuguese.

or

(c) *Vernacular:* Marathi, Gujarati, Kanarese, Urdu, Sindhi.

(3-6) Any four of the following one and not more than one being selected from Nos. ix-xiv inclusive :—

i. A language from a group other than the group selected for (2).
ii. History, either
(*a*) English, *or*
(*b*) European, *or*
(*c*) Indian.
iii. Logic, Inductive and Deductive.
iv. Elements of Political Economy.
v. Elements of Politics.
vi. Indian Administration.
vii. Mathematics.
viii. Advanced Mathematics.
ix. Physics.
x. Chemistry.
xi. Biology.
xii. Astronomy.
xiii. Geography.
xiv. Geology.

The course to be divided suitably between the two years of study.

Science.

(1) English (ability to express himself in correct and lucid English, with general study of an English book or books of scientific interest).
(2) French or German (to be studied as above for English): *or*, for Medicals only, Latin.

Inductive Logic.
(3) Physics.
(4) Chemistry.
(5) Mathematics.
(6) Biology.

The course to be divided suitably into two parts so that Medical and Engineering students may join their Professional College at the end of the first year.

B.A. Pass (two years.)

(1) English, Practical and Modern (one paper).
(2) English literature with texts for detailed or general study (one paper).
(3) Present day subjects and every day Science (one paper).
(4-6) Three of the following, one subject, only being taken from each group :— (two papers each)

Candidates may take any three of their six subjects at the end of their third year.

i. A classical language and literature: Greek, Latin, Sanskrit, Persian, Arabic, Hebrew, Pali, Avesta-Pahlavi, Ardha-Magadhi.
ii. A Modern European Language and Literature: French, German, Portuguese.

B.Sc. (Pass.)

Any one of the following six groups :—

(1) Chemistry, Mathematics, Physics.
(2) Botany, Zoology, Chemistry.
(3) Geology, Chemistry, Biology.
(4) Physics, Chemistry, Biology.
(5) Physiology, Chemistry, Biology.
(6) Geography, Geology, Biology.

iii. An Indian Vernacular: Marathi, Gujarati, Kanarese, Urdu, Sindhi.
iv. History: (*a*) *English* or (*b*) European or (*c*) Indian.
v. Economics.
vi. Political Science.
vii. Education.
viii. Psychology.
ix. Moral Philosophy.
x. Indian Philosophy.
xi. Mathematics.
xii. One of the following Sciences:
Physics.
Chemistry.
Botany.
Zoology.
Geography.
Astronomy.
Geology.

B.A. Honours (two years.)

1. English—Practical and Modern (one paper).
2. Present day subjects and every day science (one paper).
3. A principal Honours subject (six papers) together with a subsidiary language or subject (two papers).
(*a*) *Language and its literature.*
i. The language as spoken and written.
ii. Works or portions of works in the language.
iii. History of the literature.
iv. History of the language.
v. The social history of the corresponding country during the period studied.
vi. A special subject or period.
(*b*) *History:* either of England and the British Empire or of Greek and Rome or of Europe or of India with one of the others or political and historical Geography or political science as subsidiary.
(*c*) *Philosophy:* including Logic, Psychology, Ethics, Metaphysics and history of Ethics and history of Modern Philosophy with some branch of Indian Philosophy as subsidiary.
(*d*) *Indian Philosophy:* with Metaphysics or other branch of European philosophy as subsidiary.
(*e*) *Mathematics:* with some branch of Mathematics of Science as subsidiary.
(*f*) *Physics and Chemistry:* (either subsidiary).
(*g*) *Botany and Zoology:* (either subsidiary)
(*h*) *Geography.*
Principal.—
1. Map-making and map-reading (one paper).
2. Principles of Physical Geography and relations of Man to the Earth (two papers).
3. Regional Geography: India (one paper),

B.Sc. Honours (two years.)

One principal and one subsidiary subject. Candidates may take any one of the following groups in which the first subject named and italicised is the principal subject:—
1. *Chemistry* and Mathematics.
2. *Chemistry* and Physics.
3. *Chemistry* and Botany.
4. *Chemistry* and Physiology.
5. *Chemistry* and Geology.
6. *Physics* and Mathematics.
7. *Botany* and Chemistry.
8. *Geology* and Chemistry.
9. *Mathematics* and Physics.
10. *Physiology* and Chemistry.
11. *Experimental Psychology* and Physics.
12. *Micrology* and Zoology.
13. *Microbiology* and Zoology.

4. One of the following: Land Forms; Climate; Geography of the sea; geography of plants and animals (one paper).
   One of the following (one paper):
   Geography of Man—
   (*a*) Ethnological or
   (*b*) Economic, or
   (*c*) Social and Political
   Subsidiary (two papers)—
Ancient and Modern historical geography
or
Surveying and Geodesy
(*i*) Economics with Politics as subsidiary.
(*j*) Politics with Economics as subsidiary.

Mr. Mirza Ali Mohammed Khan is against "the paper on present day subjects and every day science", and would substitute for it a paper on Standard Authors. He is in favour of a paper on English Essay by means of which not only the student's knowledge of English but also his general knowledge can be effectively tested.

APPENDIX No. 13. (*Vide* Chapter XIV.)

Letter on a lower Medical Degree

Bombay, 6th February 1925.

To—A. L. COVERNTON, Esq.,
Secretary, University Reform Committee.

Dear Sir,

In connection with the investigation your committee is carrying on regarding the University reforms, I have the honour to lay before you the following, concerning the Medical Education in this Presidency.

At present the Bombay University recognises the medical teaching for the degree of M.B.B.S. which is the lowest qualification in the University curriculum. But as Major Higham has already brought to the notice of your committee the necessity of instituting a cheaper degree (cheaper both in time and money), I beg to corroborate him in this opinion of his. If the mortality in the mofussil has to be adequately reduced the establishing of a cheaper degree than the M.B.B.S. is absolutely necessary. The necessity was seen by some of the local medical men and long before Major Higham gave expression to his opinion, these gentlemen started a medical college in Bombay called the National Medical College. This College has intention in addition to giving higher medical education, of making it cheaper both in time and in money by charging moderate fees and by including the higher education in its post-graduate courses. As I wish to lay before you in more detail our plans to make the Medical Education in this Presidency cheaper to meet the mofussil demands, I request you to grant me an interview at your early convenience. I understand that your committee is about to consider the question of Medical Education very shortly and hence the request for an interview.

Yours faithfully,
(Signed) A. P. KOTHARE,
Principal,
National Medical College, Bombay.

(II)

Bombay, 16th February 1925.

To—A. L. COVERNTON, Esq.,
Secretary, University Reform Committee.

Sir,

As desired by you, I beg to send you herein enclosed a draft Scheme of Medical Education to be of use for mofussil practice, for the favourable consideration of your committee and for its inclusion in your committee's final report.

The reasons for the inclusion of this Scheme in your committee's report are both obvious and urgent. The Bombay Government have realised the utter helplessness of mofussil inhabitants in the matter of medical help and have devised two schemes to meet the situation. One of these is to give Medical tuition, of the kind necessary for the particular village, to the village teachers by attaching them to the nearest Civil Hospitals for a period of three months. This scheme my council regards as very inadequate and unsatisfactory. The present university graduates are not expected to got to the mofussil as their services are not likely to be adequately compensated nor their knowledge utilised owing to want of proper material, and hence my council has suggested the accompanying scheme to replace the Government scheme noted above.

This scheme if accepted will give a constant and efficient supply of properly trained medical men for service in the mofussil and will considerably assist in reducing the mortality of this Presidency.

I have, etc.,

(Signed) A. P. KOTHARE,

President,

The National Medical College Council.

THE BOMBAY UNIVERSITY.

MEDICAL EDUCATIONAL SCHEME FOR PROVIDING MEDICAL MEN TO THE MOFUSSIL.

Object.—The object of this scheme is to prepare medical men to take up the work of healing in the mofussil by introducing such a course of medical studies as will induce those students, who will be content with the necessarily small income obtainable from the mofussil practice, to take up the course.

Qualifications.—The qualification to be conferred on the students after completion of this course shall be L.M.P. (Licensed Medical Practitioner).

Standard of Admission.—This shall be the certificate from the School Leaving Examination Board of the University of Bombay, of having passed the School Leaving Examination in English, Vernacular, elementary Botany and Zoolgy, elementary Physiology, and Hygiene and elementary Physics and Chemistry; and a certificate of having passed examination in Arithmetic.

Course.—There shall be two examinations: the First L.M.P. and the Final L.M.P.

The course of the First L.M.P.—This shall include:—

(1) a course of 80 lectures and demonstrations in Anatomy and dissection of one human body excepting the nervous system;

(2) a course of 50 lectures in Physiology;

(3) a course of thirty lectures in Materia Medica and Pharmacy. The whole course to occupy two terms of six months each.

The course of the Final L.M.P.—A candidate can appear for this examination after putting two years' professional study after passing the First L.M.P.

The course of study for the final L.M.P. shall include: (1) a course of 80 lectures in Medicine; (2) a course of 80 lectures in Surgery; (3) a course of 40 lectures and instruction in Midwifery and Gynæcology; and shall have attended four labour cases; (4) a course of 25 lectures in Ophthalmology; (5) a course of 50 lectures in Hygiene including general instruction in epidermology and village sanitation; (6) attendance in the ward of general Hospital during two years after passing the first L.M.P.; (7) attendance in a *post mortem* room of a general Hospital for three months; (8) adequate instruction in the administration of anæsthetics; (9) attendance of one and half month at an ophthalmic Hospital; (10) attendance of one and a half month at a Dental Hospital.

APPENDIX No. 14. (*Vide* Chapter XIV-D, Paras. 164-5.)

Letters on Music.

No. 364 of 19th January 1925.

From

A. L. COVERNTON, Esq.,
Secretary, University Reform Committee, Bombay;

To

(1) E. Clements, Esq., Sessions Judge, Ahmedabad.
(2) W. E. G. Solomon, Principal, School of Art, Bombay.
(3) Dr. E. Faulkner, Organist and Choir Master, St. Thomas' Cathedral.
(4) E. Behr, Esq., Director, Bombay Symphony Orchestra.
(5) N. V. Bhatkhande, Esq.
(6) M. Fredilis, Esq., Baroda.

Sir,

It has been proposed to the Committee on University Reform that the University should institute a Faculty of Fine Arts to include Music, Sculpture, Drawing, and Painting, and should award a university degree for proficiency in these subjects. The Committee would be glad of your advice on this matter, more particularly on such questions as whether there are, firstly, gentlemen or ladies suitably qualified and willing to be appointed to the Faculty, construct courses and advise the University generally in the promotion of the study of the Fine Arts: secondly, institutions and instructors competent and equipped to supply suitable instruction, direction and practical guidance and training in such subjects up to university standards: and thirdly, whether there is a real need for the university of Bombay to undertake such work and likely to be a sufficient number of students with adequate educational grounding to undertake university courses in the Fine Arts.

I have the honour to request that you will be so good as to give me an early reply, if possible before the end of this month.

I have, etc.,

A. L. COVERNTON.

REPLIES.

(1)

Reply from Dr. E. Faulkner, dated January 26th, 1925.

Dear Sir,

I do not think there is sufficient scope in Bombay for instituting a Faculty of Fine Arts, etc., and the expenses would be very great.

Also I do not think that local degrees under local teachers would be the right kind of work for India. That is the reason I believe in the Trinity College work.

A first-class comes out from Home, who is absolutely unbiassed, and fair. I shall be away from Bombay until the end of the week, but if you would like a chat over the matter we can arrange to meet some time.

Yours sincerely,
(Signed) EDGAR FAULKNER.

(2)

Reply from Mr. E. Clements, I.C.S., Ahmedabad, dated 27th January 1925.

Sir,

With reference to your letter No. 364, dated 19th January 1925, on the above subject, I have the honour to state that, in my opinion, it is not advisable that the University should set itself up as an arbiter on pure matters of taste. It seems to me therefore that it would be better to confine the activities of the University in this field to (1) music and (2) architecture. These are subjects in which there is a great deal beyond matters of state, and in which a degree could be granted without taking matters of taste into consideration to any material extent. I propose giving my opinion only on Indian music and not on any other subject.

2. As regards Indian music, I think it is essential that the University should move in the matter and as soon as possible, for the following reasons :—

For some years past popular education in Indian music has been carried on in many Government schools and private Institutions. In ancient times there was something in the way of theory of intonation, but, in the course of time, music became restricted to professionals and those professionals became hereditary either by ordinary succession or by the succession of master and pupil. A pupil in singing devoted the whole of his life to his art. Whatever knowledge the *gavais* had of theory was kept by them as a trade secret ; and was not imparted to the general public. The result is that now, when there is a clamour for popular education, the old text books are not in the least understood and each amateur has his own ideas which he ventilates at every possible opportunity. As far as I know there are very few individuals who have attacked the subject with sufficient training and in a scientific spirit. In this Presidency I know only of two, namely, Mr. K. V. Deval and myself. We consider that there is no scale employed in Indian music which we have not measured and which we cannot express in the simple form of notation which we have adopted. Like all other scientific investigators in such branches of study, we have had to use as an instrument the harmonium. The reason is that when a musical interval can be

described by a ratio it can be reproduced on a harmonium without difficulty by tuning without beats. The harmonium has this advantage that the sound is sustained and rich in upper partials, and that beats can therefore be readily detected. The harmonium is the best instrument for use as a standard, that is to say, the harmonium is the most suitable instrument on which any scale can be permanently kept so that it can be copied on other more pleasing instruments. The harmonium is used all over India in a most ignorant way by musical institutions engaged in popularising music. It is sent out here from Paris and London and other places tuned more or less accurately to the tempered scale of Europe. Generally speaking, in this country, it is subjected to no further tuning. Occasionally when there is a marked discrepancy an attempt is made roughly to remedy that state of affairs but the popular idea is that the harmonium requires no tuning, and, with the exception of ourselves, I know of no one who has any idea how to tune the harmonium so as to render one simple *raga* correctly.

Meanwhile, the old *gavais* are fast disappearing. No one can deny that in a few years' time there will be no teachers left who have been properly trained in the old style. We shall simply have half-trained individuals coming from institutions where the tempered harmonium is used as a medium of instruction. At the present moment nearly all music classes in India are conducted with the help of the originally tempered and otherwise untuned harmonium.

Indian music belongs to the old family of musical systems in which music was divided into compartments. The mode chosen for a song depended on the *ethos* required, and the *ethos* of a *raga* or mode depended on the quarter-tone differences between the intervals employed in that *raga* and those employed in other similar *ragas*. Those quarter-tone differences were dealt with up to a certain point in the ancient text books but the ordinary amateur has not the faintest suspicion of them. A certain amateur, who poses as a great expert, confines himself to twelve *svaras* or notes to the *octave*. To any one with any, even the slightest, scientific acquaintance with the subject, his ignorance is patent. The public have no acquaintance with the theory, and in this term I include most amateurs who teach and write books. The most proficient of them can claim to possess a knowledge of the *chalan* or flow of melody of the *ragas*. This is more than anything a matter of convention. A knowledge of the conventions of Indian music is not sufficient for a teaching of Indian musical intonation. Science is required, and, I think, there is no authority in a better position than the University of Bombay to see that a little science is introduced into the teaching of Indian music. Otherwise, as an art system, it will disappear.

It is said by many that the time is not yet ripe. I believe this is the attitude of most of the local Governments. The time will never be ripe unless the Government or Universities take the matter in hand. One cannot depend on public taste—public taste requires to be educated.

3. *Institutions and Instructions.*—Except the Musical Academy of Baroda presided over by Mr. Fredilis, I know of no musical

institution which does not use the tempered harmonium. I inspected the chief institution in Bombay some years ago, and found that harmoniums were actually being constructed on the premises and launched on an unsuspecting public without any knowledge of how to tune them, or any attempt to tune them. I may interpolate here that my experience tells me that a harmonium requires tuning about once in ten days.

4. *Teachers and Pupils.*—I think teachers and pupils can be obtained, but it is first necessary that the University should give its approval to scientific instruction. One cannot set up a Faculty of Indian music without adequate preparation. I think the course of instruction should include (1) Raga and rhythm, being the practical part, (2) the theory of intonation (which is the foundation of the *ragas*), and (3) prosody, form and composition. The various metres should be taught to pupils under this head and they should be instructed as regards the best way of setting words to music. Form would include a knowledge of the various kinds of songs such as Dhrupad, Khiyal, etc.

5. *Personalities.*—I am much impressed by the skill of Mr. Fredilis in practical teaching, also by the pertinacity of Mr. Bhatkhande, pleader of Bombay, in studying the history and *chalan* of the *ragas*. Mr. Bhatkhande's theories, as regards intonation, are utterly unscientific. Mr. Fredilis has given his adherence in a general way to those theories, although he does not agree with the view originally expressed by Mr. Bhatkhande that twelve notes are sufficient. Their combined attitude comes to this that twelve names of notes with twelve signs for those names need only be used, but that in practice slight differences of *sruti* or intonation are made. This is a rough and ready method which cannot possibly commend itself to anyone who wishes to preserve the *ragas*. It is necessary that each separate *svara* should have a separate name and a separate sign. In no other way can the differences of intonation between the *ragas* be made understood. Similarly, it is necessary to have standards in the way already discussed, in the form of harmoniums kept in tune on certain methods. If it were possible to get Mr. Bhatkhande and Mr. Fredilis to agree to these conclusions and work together on these lines other difficulties would not prove insurmountable, and once a scientific system of intonation had been accepted by influential people, there would be no lack of students and pupils. Without the co-operation of the individuals I have mentioned I can think of no better way than for me to expound my views in a series of public lectures and to watch the result. I am definitely of opinion that nothing can be done so long as a vague and undefined and unscientific theory is taught. Such a system is no system at all; it does not serve to teach the differences between the *ragas* and it encourages the use of the tempered harmonium, which is the gravest danger that Indian music has ever had to face.

6. *The place of Science in Indian Intonation.*—I think it would not be out of place to mention briefly what support there is for the view that Indian intonation can be expressed in scientific terms. It is

necessary to deal with this question because European writers have generally speaking shown their contempt for Indian music by regarding it as founded on caprice and not upon harmony. This verdict on their part was due to their being insufficiently equipped for the examination of oriental system, and I am convinced both with regard to ancient Greek music and with regard to the existing oriental systems that their opinion is absolutely valueless. The Sangit Ratnakar and Natya Sastra, the two oldest text books, sufficiently prove that the main foundations of the differences between the Indian modes lies in the distinction between the major tone and the minor tone and therefore must be referred to harmony, and not to caprice. A study of modern Indian music when rendered uncontaminated by equal temperament leads to the same conclusion. When a *raga* has a tender or devotional effect, this result is achieved by making all the principal svaras of the scale consonant with the drone and when it has a warlike or manly effect, this is attained by making some one or more of the prominent svaras dissonant with the drone. This is the fundamental fact by which harmony and its opposite discord is revealed.

I hope that the above will make the position clear and will perhaps give a lead to the University Reform Committee.

I have, etc.,

E. CLEMENTS,

District Judge, Ahmedabad.

(3)

Baroda, 29th January 1925.

From

M. FREDILIS, ESQ., S. M. Sangit Achaariya,
(Benares), Principal, School of Indian Music,
Baroda ;

To

A. L. COVERNTON, ESQ.,
Secretary, University Reform Committee, Bombay.

Sir,

Having just returned from the 4th All-India Music Conference, Lucknow and Benares, I hasten to reply to your letter No. 364, dated 19th January 1925.

I shall be glad to assist the Committee in every way, particularly, the subject dealing with Hindustani Music. It is a matter of great importance to the University of Bombay to include Fine Arts and Music in their degrees.

I have, etc.,

(Signed) M. FREDILIS,
Principal,
School of Indian Music, Baroda.

Secretary's letter to Mr. Fredilis.

Bombay, 31st January 1925.

Sir,

In reply to your letter of 29th January 1925, it would be a help to my Committee if you would at a very early date put down on paper any suggestions you have to make with reference to the establishment by the University of a course of instruction in Indian Music. The main points, as I understand the matter, are :—

(1) Is there agreement as to the scientific basis of Indian Music, or can such agreement be arrived at, so that its study may proceed on sound and generally approved lines ?
(2) What would be in outline the course of instruction ?
(3) Are there qualified instructors available ?
(4) Is there demand for advanced teaching in the theory and practice of Indian Music ?

Yours truly,

(Signed) A. L. COVERNTON.

(4)

Reply from Mr. V. N. Bhatkhande, Bombay.

29th January 1925.

From

VISHNU NARAYAN BHATKHANDE,

High Court Pleader (Retired) ;

To

A. L. COVERNTON, Esq.,
Secretary, University Reform Committee, Bombay.

Sir,

I have the honour to acknowledge receipt of your letter No. 364 of the 19th ultimo referring to the question of the institution of a Faculty of Fine Arts at the University of Bombay, to include Music, Sculpture, Drawing and Painting.

It is a matter of great congratulation to think that our University is thinking of establishing a Faculty of Fine Arts and thereby filling up an omission which very much needs to be filled up. Almost all the great Universities of the world have a Faculty of Fine Arts, and our University cannot aspire to a position of equality with them until such a Faculty is included in it. I may be permitted to point out that some of the other Universities in this country have already taken steps in that direction, and it is time that our University should not lag behind.

As regards the questions which have been referred to me for advice, I have the honour to state that I am in a position to speak definitely only on the subject of Indian Music and my replies will be limited to that subject.

(*i*) Firstly, there are available several well-educated gentlemen, and at least one lady whom I know of (I mean Mrs. Margaret E. Cousins), who are qualified to be appointed to the Faculty or help in the construction of courses, and generally advise the University on the question of Indian Music ; and if the matter is referred to them for advice, I believe, they will most willingly co-operate in the matter and place their services at the disposal of the University.

(*ii*) Secondly, there are a number of institutions and also many instructors at present employed in giving instruction in the practice of Indian Music. Some of these institutions also give instruction in the theory of the subject. There is, however, no uniformity of system or method adopted in imparting instruction in these institutions on account of the absence of a standard of competence fixed by a recognised body like the University or a Board of Education. If the University takes the initiative in the matter, by establishing a Faculty of Fine Arts including Music, these institutions will not find it difficult to give suitable instruction, direction and practical guidance for training students up to a standard to be fixed by the University.

(*iii*) Thirdly, there is a very great need for our University to take immediate steps in this direction. The Faculty of Fine Arts should, therefore, be established without delay, and steps should be taken for including music as a subject of study in the university curriculum. It is imperative that advantage is taken of the help and guidance of the few really competent persons now available for drafting courses, and obtaining general advice in the promotion of the study of the subject.

As regards students desiring to take up university courses in Music I believe there is sufficient public interest in the subject to justify the expectation that there will be no deficiency of students. But having regard to the unquestioned value of the study of the Fine Arts as an educational factor, and the aim of the University to promote liberal education and general culture, the University should not wait to be convinced about the number of students who will be willing to take up the university courses, before deciding to establish the Faculty of Fine Arts. Even assuming that there is not sufficient popular demand justifying the establishment of a Faculty of Fine Arts, it is the duty of the University to create the demand by promoting and popularising the study of the Fine Arts. Once the Faculty is established and public recognition is given to the value of this important cultural factor, that fact itself will give further impetus to the existing public interest and enthusiasm in the matter.

I have, etc.,

(Signed) VISHNU NARAYAN BHATKHANDE.

(5)

Further letter from Mr. M. Fredilis of Baroda.

Baroda, 3rd February 1925.

Dear Sir,

With reference to your letter of the 31st January, it would be advisable and to the interest of all concerned, if a faculty was established

consisting of Mr. Clements of Ahmedabad, Mr. V. N. Bhatkhande and Pandit Vishnu Digumber of Bombay, the Secretary of the Poona Gayan Samaj and myself.

It would be perfectly useless my suggesting any courses which would not be accepted by the above-mentioned gentlemen and *vice versa*.

Mr. Clements and Mr. Bhatkhande wrote to me on the same subject and I think if a meeting were to be arranged, we would have no difficulty in arriving at an understanding.

Yours sincerely,

(Signed) M. FREDILIS,

Principal, School of Indian Music.

(6)

February 12th, 1925.

From

EDWARD BEHR,

Director, Bombay Symphony Orchestra ;

To

A. L. COVERNTON, Esq.,

Secretary, University Reform Committee, Bombay.

Sir,

In reply to your enquiry with regard to my views on the above subject I write to inform you that I agree with and am entirely in sympathy with such a proposal as from the point of view of musical studies. I consider that, in this country, it is most urgent that there should be a central guiding and controlling institute capable of affording a complete course of studies in practical and theoretical knowledge terminating in a high standard of efficiency.

At the present moment musical education is entirely neglected and so falls mostly into the hands of the incompetent and the examinations left in the hands of visiting bodies that merely come to this country for the purpose of getting fees with no regard for efficiency.

Owing to a large number of children who learn music in schools and therefore the number of teachers engaged I consider that there is real need of some institution or recognised educational body, such as the University, taking control of and supervising the training of such teachers and the standards of efficiency imparted.

For this purpose it is essential that a College of Music on the same lines as the Royal College of Music and Royal Academy of Music, London, should be founded in Bombay for the purpose of providing a complete course of studies in all branches of musical knowledge of which the highest and final standard could be the University degree.

I consider that the nucleus of such an Institution already exists in the foundation of the Bombay Symphony Orchestra and that with more funds at its disposal it could easily be expanded into such a teaching and training College of real educational value, expecially if recognised by the educational authorities.

I do not consider that at the present stage a very large or extensive institution is necessary as it would entail the expenditure of a large sum of money but a very useful and competent educational body could be formed out of the Bombay Symphony Orchestra capable of supplying practical and suitable instruction and training and to advise and construct courses, examine and supervise, etc., which could grow and expand as needed.

A building, a Director and staff of professors who would be the principal solo players of the orchestra, with the addition of one or two for purely theoretical subjects would be all that is required to start with.

The income would be from students' fees and all monies earned by the orchestra by means of Symphony concerts, etc., and public subscriptions, scholarships, etc. Roughly estimated a sum of three lacs of rupees would be adequate to found such an Insitution.

Personally I consider that both Western music and Indian music should be studied and provided for in due and the same Institution.

Judging from the number of students who learn music and go in for utterly worthless examinations, I consider that there would be an ample supply of students for an Institution capable of supplying a sound musical training and a high standard of efficiency.

In conclusion I must apologise for the delay in sending a reply and add that I am at your disposal for any further information you may desire to have.

I have, etc.,

(Signed) EDWARD BEHR.

APPENDIX No. 15 (*Vide* Chapter XIV-D, Section III.)

SCHEMES FOR THE TEACHING OF MUSIC.

(*A—Mr. Bhatkhande's scheme.*)

Draft Course for the Degrees of Bachelor of Music and Master of Music.

The course prescribed in the following lines pre-supposes that the student has got elementary training in music, that is to say, that he has (1) Swara-dnyana, by which is meant the ability to sing any unknown song which has been written to the notation prescribed by the University and (2) Accurate knowledge of the definite differential characteristics of and ability to sing a prescribed number of songs (khyals, or Lakshana Geetas) and " sargams " in the fitteen popular and well-known ragas shown in the Appendix A ; and (3) at least the following seven " talas " —Trital, Choutal, Dadra, Ektal, Zaptal, Soolfak, and Zoomra.

This education has to be gone through in the lower standards of the schools leading up to the entrance examination of the college. The course prescribed is intended to give the student education in the popular remaining well-known ragas as also a knowledge of the general principles underlying Indian music, including raga " alapa " or development, time theory, song composition, Tala, and the history of the development of Indian music from ancient times.

The Hindusthani music system consists of about 150 to 175 ragas of which only about 75 are popular and well-known. The remaining are not in common use though they are known to the professional experts of repute and could be prescribed for the higher degrees in music.

We have now a sufficient number of books dealing with the ragas more or less exhaustively, and the student can, therefore, make a regular and scientific study with the help of these books. If the books which exist are found unsuitable for instruction for any reason by a committee to be appointed by the University for the purpose, fresh books can be got written under the directions of the committee on lines to be laid down by the committee, through well-known scholars in the subjects. These would be the university text books. It is true that in some cases there are differences of opinion about the notes used in any particular raga, but this need not hinder the student, for whatever is popular and commonly accepted should be taught to the student. The differences can be studied at the same time as the raga is studied.

In an institution devoted solely to training in music, it is easy to teach to the student the whole of the music course extending over seventy-five ragas and comprising about four hundred well-known and classical compositions during five years. This is being done in the Madhav Sangeeta Vidyalaya at Gwalior. In other institutions the study has to be extended over the primary and secondary schools and the college course.

Those students who have no voice for vocal music may be given the option of learning instrumental music.

Explanation.

Theory.—In the following course "Theory" of a raga means the definite differential definition of such raga. The differential definition includes the following details: (1) Thata or the genus or the parent melody type of the raga; (2) Jaiti, that is, whether it is odava, shadava or sampurna; (3) Aroha and avaroha, that is the notes of the ascending and descending scale used in it; (4) Time of the day or night for singing the same; (5) Anga Pradhanya, that is whether the raga mainfests itself in the upper or lower tetrachord of the scale; (6) Vadi, samvadis varjya, and durbula notes of the ragas; (7) swara sangati, that is, characteristic swara combinations; (8) Mishrana, that is the component parts of a raga where it is made up by compounding one or more other ragas; (9) Vakrata, that is characteristic irregular ascent or descent, of the scale used in singing the raga; (10) "Catch" or one or more distinguishing swara combination, which by itself is sufficient to indicate the raga; (11) Vishranti-sthana or characteristic halting-places during the development or alapa of the raga; (12) "Uthava" or the opening of the asthai, antara, sanchari and abhoga of the raga.

Theory of a tala.—Means knowledge of the number of "matras" in the tala, their division into bars, their "grahas", "ateet", "anagat", "sama", "vishama" the accented and unaccented bars, the laya of the tala (druta, madhya, vilambit), the bols and parans of the tala on the tabla or the pakhawaj. These details are technically known as the ten "prana"s or essentials of the tala, and are called technically, Kāla, māraga, kriyā, anga, grahā, jāti, kalā, laya, yati, and prastār.

Practice.—Of a raga means (*i*) knowledge of at least one sargama, one Lakshana Geeta or a song the wording of which itself shows the characteristic features of the raga, two khyals, one in the Vilambit laya (slow time) and one in the chalati laya (fast time), one dhrupada, and one dhamara: (*ii*) ability to develop the song by "tan"s and "alapa"s: (*iii*) ability to set down correctly in the form of notation compositions which have been taught to the student in the course of the year and in an oral examination sing the same or play on instruments.

First Year's Course.

(1) The theory and practice of the following fifteen ragas: —

Hamir, Kedar, Bageshari, Tilak-Kamod, Jayjayvanti, Chhayanat, Kamod, Gound Malhar, Shree, Kalingda, Sohoni, Shankara, Saranga, Jaunpuri, and Bhimpalasa.

(2) The following additional talas with details of "theory" relating to them: —

Tivrā, Roopaka, Adā Choutāla, Dhamār, Tilwādā and Panjābi thekā.

Second Year's Course.

(1) The theory and practice of the following fifteen ragas :—

Shuddha Kalyan, Hindol, Goud Sarang, Tilang, Puriya Dhanashri, Paraj, Vasant, Pooriya, Lalat, Bahar, Miyaki Malhar, Darbari Kanada, Adana, Ramkali, and Mooltani.

(2) Theory and Practice of the following additional talas :—

Brahma, Rudra, Gaja-zampa, Shikhar, Sawari, Pooshtu, and Lakshmi.

(3) The swara and raga chapters of any one of the following Sankrit treatises as may be prescribed by the University : —

Sangeeta Parijata, Abhinava Raga Manjari, Sangeeta Sudhakara, Kalpadrumankur.

(4) The whole of Raga Chandrika Sar which gives definitions of all the Ragas in the form of " dohras " or of any other similar book.

(5) Practice of taking sdown to dictation in the form of notation " tan "s or " alapa "s or swara combinations sung to or played to the student.

Third Year's Course.

(1) The theory and practice of the following additional ragas :—

Malshiri, Yemni Bilawala, Devagiri, Kookoobh, Gara, Sorat, Zinzooti, Jetshri, Gouri, Bibhasa, Megha Malhara, Soor Malhar, Soha, Sooghrai, Khata.

(2) General principles underlying Indian Music :—

Essential characteristics of a thata, and a raga, classification of ragas under thatas, allocation of ragas to the different parts of the day, or time theory, distinctive features of types of composition such as Khyāl, dhrupada, dhamār, tappā, gazzal, thoomri tarana, chataranga, etc., principles of ālāpa or development with special reference to the vādi, samvādi rules, the " gamaka "s or graces used in singing, etc.

(3) Exercises in difficult notation.

(4) Any one of the following books :—

Sangeeta Parijata, Hr. Prakasha, Raga Manjari, Raga Mala, Raga Tatva Vibodha.

Fourth Year or Degree Course.

(1) The theory and practice of the following additional ragas :—

Shyam Kalyana, Goonkali, Laccha Sakh, Sarparda, Doorga, Maligoura Jogia, Bhariar, Bhankhar, Sindhoora, Khambavati, Deshi, Vibhasa, Nayaki Kanada, Gandhari.

(2) Srutis and swaras theory, general principles of acoustics, comparative vibrational values of the notes of the octave, principles

of song composition, easy exercises in song compositions, and in alapa composition, etc.

(3) Exercises in difficult notation.

(4) Lakshya Sangeeta, Hindusthani Sangeeta Paddhati, Popleys' Music of Hindusthani, or other books which may be prescribed by the University.

(5) An original or written song or composition in any of the ragas which have been taught to the student in the college course in a prescribed "tala" to illustrate a given idea, which will be communicated to the student beforehand. Such composition will be required to be sent to the examiner at least one month before the day fixed for the examination and only those students will be examined whose compositions will be considered of sufficient merit to entitle them to an examination.

There should be a practical examination for testing the capacity of the student as regards notation, singing, alapa, etc., and written examination also.

Post Graduate Course.

(1) Theory and practice of the following additional ragas :—

Triveni, Malooha Kedar, Pat Manjari, Miyaki Saranga, Shahana, Ramdasi Malhar, Maligoura, Nat Malhar, Devsakh, Hanskankani, Barari, Shri Tank, Jeta, Dhoolia Malhar, Hem, Sajgiri, Madhmad Sarang, Patdipiki, Bengal, Badhans Sarang, Rup Manjari, Goojari, Lachari Todi, Bilas Khani Todi, Shuddha Malhar.

(2) General knowledge of the southern or Karnataki System as derived from any one or more of the following books namely, Chaturdandi Prakashika, Raga Vibodha, Swara Mela Kalanidhi.

(3) Study of the Sangeeta Ratnakara (Swara and Raga chapters).

(4) Original compositions in four parts, asthai, antra, sanchari, and abhoga to illustrate a given idea.

(5) A thesis on any question relating to the theory or practice of Hindusthani Music which may be prescribed for the thesis by the University.

(6) Comparative study of the development of the ragas from ancient times, that is, of their former "swarupa"s with their modern "swarupa"s.

(7) Psychology of Music, Ragas and Rasas, Talas and rasas.

(8) Comparative study of the music of northern and southern India.

APPENDIX A.

Yaman Kalyan, Bilawala, Khamaj, Bhairava, Poorvi, Marwa, Kafi, Asawari, Bhairavi, Todi, Bhupali, Behag, Desa, Piloo, Malkouns.

(B.—MR. BEHR'S SCHEME).

An Academy or College of Music. A Scheme for its foundation and establishment in Bombay.

In view of my reply to the letter of enquiry with regard to the foundation of a Faculty of Fine Arts (to include Music) received from the Secretary, University Reform Committee, the following is put forward as a means of founding an institution after the style of the Royal College of Music or Royal Academy of Music, London, to afford a recognised standard of musical training and a complete course of study in all branches of musical knowledge on the same lines as is done in the above-mentioned institutions.

I consider it quite possible to start such an institution suitable to the present needs but in such a way so as to allow for expansion and development as and when required.

The necessary and essential needs in order to make a start would be:

1. A *building* or part of a building with suitable teaching rooms, offices, etc., until such time as the College could possess its own building. This would mean a rent of Rs. 600 to Rs. 800 per month.
2. An organising *Director* with energy and progressive ideas capable of directing and supervising the work of the professors and students, etc. As this would mean a great deal of hard work taking up the whole of his time and to encourage a high standard of efficiency a salary of at least Rs. 1,000 per month would be necessary, rising to a higher figure with the progress of the College.
3. A *staff* of 6 to 8 professors to start with to give instruction in pianoforte, violin, cello, singing, theoretical studies, wind instruments, organs, etc. The salaries of such professors would have to be at least Rs. 500 per month if a high standard of efficiency is to be maintained, also rising with the success of the College.

These professors would also be the principal solo players of the Bombay Symphony Orchestra so that their salaries could be made up from the two functions combined, according to the number of hours work they are called upon to perform.

4. An *Office staff* to consist of a paid Secretary or Registrar and two or three typist clerks and two or three hamals at a cost of Rs. 500 to Rs. 600 per mensem.
5. Starting on the above basis and estimating on the suggested salaries, rents, etc., the actual recurring expenditure of running the institution would be Rs. 28,200 per year.
6. The income would be from students' fees which, judging from actual experience, for the first year should amount to at

least Rs. 10,000 per year. There is every reason to believe it would be double this amount without much difficulty.

7. If the Orchestra and the College are combined as one, which I consider they should be at present, and putting the income from the Orchestra as low as Rs. 1,000 per month, it would mean an additional income of Rs. 12,000 per year.

This also is a low estimate and should be easily double, judging by what the orchestra is earning at present, making a total income of Rs. 22,000 (at a low estimate).

8. There would be a further source of income from students' entrance fees.

Another source of income would be donations, private subscriptions and endowments for scholarships which wealthy citizens should be encouraged to found.

9. Estimating on the above possibilities there seems to be no reason to doubt that the actual cost would be met by income within a reasonable time.

10. In addition to the above there would have to be an initial outlay for equipment such as musical instruments (pianos). furniture (cupboards, tables, chairs, etc.), office equipment (typewriters, etc.), etc.—roughly estimated at a cost of Rs. 10,000.

11. I consider that such a College with a high standard of efficiency as regards its teaching and training abilities and run on popular lines with reasonable fees within the reach of the middle classes and even the poor through scholarships, etc., would, if it were enabled to exist for 4 or 5 years, be a success and able to become self-supporting.

12. A further step towards its success would be the possession of an up-to-date building of its own with a fine concert hall, which could be used not only for its own concerts but lent on hire for other concerts, etc., when not required for its own purposes, which would add a further source of income to the building of it. This scheme only deals with the starting and founding of such a College, and I see no reason why such an institution should not be started at the earliest opportunity especially if its work of teaching, etc., was recognised by the Educational Authorities and the University.

The scheme of the actual work of the College, its curriculum, various classes and activities, etc., can be drawn up when there is a real possibility of its coming into being.

Having had a long training and experience as a scholarship holder of the Royal College of Music, London, with which institution I am still in touch, there would be no difficulty in drawing up a scheme of studies and classes, etc., to meet local needs.

The success of such a College is, I am sure, based on the fact of the College and the Symphony Orchestra being combined into one body.

(Signed) EDWARD BEHR.

APPENDIX No. 16. (*Vide* Chapter XIV-E.)

HISTORY OF THE PROPOSAL FOR THE AFFILIATION OF THE VETERINARY COLLEGE, BOMBAY, BY THE BOMBAY UNIVERSITY.

1. The Bombay Veterinary College was founded in 1883 with the Bombay Matriculation as its entrance qualification.

2. Some years later (1892 ?) the entrance qualification was lowered to a knowledge of what is taught in A.-V. Standard V. This was probably due to a desire to popularise the study of Veterinary Science and turn out a larger number of village practitioners. Dr. Narsingrao attributed it to jealousy of European Veterinary Surgeons anxious to prevent Indian competition.

3. In 1904 a petition was sent in to the Governor by Dr. N. Narsingrao, a former Assistant Professor at the Veterinary College, requesting that the entrance qualification should be raised again to Matriculation level and the standard of Veterinary Studies at the College be raised.

4. In 1912—14 the majority of the Public Services Commission recommended that classes teaching up to the highest standard of Veterinary Science should be established in India to enable Indians to qualify for the Imperial Branch of the Department. Sir F. G. Sly dissented strongly (Calcutta Commission, Ch. XXV, p. 151).

5. In 1917 a Committee of the Board of Agriculture in India sitting at Poona reported a great demand for Veterinary Assistants in the subordinate cadre and of more highly trained men for supervision, direction and teaching : and recommended—

(*i*) a revision of the organisation in order to provide Provincial Service officers ;

(*ii*) a raising of Veterinary Education to a higher grade either in the Provincial Colleges or by creating a Central Imperial Veterinary College ; and

(*iii*) granting scholarships to enable suitable men to be trained at the Royal College of Veterinary Surgeons in England.

6. In 1919, a Veterinary Conference at Lahore resolved that the recommendation of the Public Services Commission was not practicable and that the large outlay necessary to establish an efficiently equipped College for the purpose was not justifiable.

7. In 1920, the Calcutta University Commission refused to make any recommendation on the subject (Vol. III, Ch. XXV, p. 152).

8. In 1921, there was a debate in the Bombay Legislative Council on a resolution of Mr. Haveliwala recommending that the Bombay Veterinary College be affiliated to the Bombay University and its entrance qualification be the Matriculation. The resolution was opposed by the Honourable Mr. Paranjpye and Sir Chimanlal Setalvad and Mr. Haveliwala withdrew his motion on an assurance that something would be done to improve the College.

9. In 1922, a Veterinary Conference in Bombay proposed creation of a Central Board of Veterinary Studies for all India and drafted a system of studies.

10. In 1923, a Veterinary Conference at Calcutta approved a curriculum which was considered to represent the present minimum requirements for training Indians to the highest standard deemed necessary for India and recommended a Central Board of Veterinary Studies, the raising of the standard of preliminary education and the continuation of less costly shorter courses.

11. In Government Resolution, Revenue Department, No. 6634 of 24th November 1924, the Government of Bombay postponed consideration of the proposal of the Conference of 1923 to extend the course of the Bombay Veterinary College to four years on the ground—

(1) that it would keep out of the service large numbers who now compete for it and who are able to meet the demand for veterinary relief in an adequate manner;

(2) that there were other more urgent financial needs.

Government further agreed with the Principal, Bombay Veterinary College, that a Central Board of Veterinary Education was not likely to serve a useful purpose and that a Local Committee of Veterinary Education should be created. It also resolved that it was not feasible to make regular arrangements for training candidates for a Local Provincial Civil Veterinary Service and that arrangements should be made to train candidates as the circumstances of the individual and the times required.

ARGUMENTS URGED IN FAVOUR OF RAISING VETERINARY EDUCATION TO UNIVERSITY LEVEL.

(1) The Bombay Veterinary College had had originally the Matriculation as entrance qualification, aimed at developing into an institution of university standard and was in fact the premier Veterinary College of India.

(2) There is an urgent need of Veterinary Science in India, particularly with reference to the preservation of cattle and improvement of breeds; also in regard to slaughter of cattle and inspection of meat supplies.

(3) Veterinary Science offers an infinite variety of opportunities for research into scientific problems relating to heredity, parasitology, bacteriology, etc.

(4) There is need in India of a Veterinary Science of a higher grade than exists at present, in order that special problems of India may be investigated.

(5) There is no means in India of training Indians for the higher branches of the Department and fitting them for veterinary research.

(6) It is desirable to give University status to the science in order to attract good men to it; that would give them a higher position and opportunity of earning higher salaries.

(7) There *is* a demand for and need of private practitioners and also openings in the Army.

(8) A university will exercise better supervision over the maintenance of the standard and provision of suitable courses.

(9) It is a subject of study at universities in England (*e.g.*, Liverpool, Edinburgh), Canada (Toronto), Australia (Melbourne) and America.

(10) Institution of a properly equipped university college and courses would lead to recognition of the College and degree by the Royal College of Veterinary Surgeons, London.

(11) The development of the motor industry affects the use of horses mainly and does not alter the need for Veterinary Science for cattle.

ARGUMENTS URGED AGAINST THE PROPOSAL.

(1) The Veterinary work for which there is an undoubted demand is mainly of a practical nature not requiring advanced courses of study or highly paid workers.

(2) To convert the College into a high grade university institution would drive away many candidates for admission. It would involve making the Intermediate Science Examination of the University the entrance qualification.

(3) There is no scope for private practice in Veterinary Science.

(4) To create a large body of veterinary graduates for whom there was little chance of employment will be to add to the number of discontented graduates.

(5) If a high grade veterinary institution is to be created, it would be less expensive to have one central college than four or five provincial colleges.

(6) Veterinary Science is mainly a technical science and does not offer scope for a liberal education and is therefore not a suitable department of university study.

(7) A university would not be competent to organise such curricula.

(8) So far as the Bombay University is concerned, it does all that is needed by including Veterinary Science, animal husbandry, stock-breeding and feeding, dairying in the course for B.Ag.

(9) Local conditions and characteristics vary enormously and centralisation of organisation or unification of studies is undesirable.

(10) It would involve heavy expenditure not merely in reorganising the College but still more in paying higher rates of salary. This Government has recently declined to undertake at present.

(11) To supply the higher education, it would be cheaper to send Indians for study to Europe, with scholarships.

APPENDIX No. 17. (*Vide* Chapter XVII-D.)

MR. MIRZA ALI MOHAMMED KHAN'S PROPOSAL TO INSTITUTE FACULTY OF ORIENTAL LEARNING.

(1) That a Faculty of Oriental Learning be instituted in the University.

(2) That the First Year Arts College Examination be the qualifying test for admission to the examinations in this Faculty.

(3) That the course for a Bachelor's degree in Oriental Learning should extend over three years and that for a Master's degree over five years.

(4) That the grouping of languages should be as under :—

(*a*) Arabic, Persian and a Vernacular.

(*b*) Sanskrit, one Prakrit and a Vernacular.

(*c*) Avesta and Pahlavi, Persian and a Vernacular.

(*d*) Hebrew, Aramaic or Syriac and a Vernacular.

(*e*) Avesta, Sanskrit and a Vernacular.

(5) That the medium of instruction be a Vernacular or a classical language.

(6) That the degree pertaining to these examinations be designated as B.O.L. and M.O.L.

(7) That the standard at the B.O.L. and M.O.L. examinations be as high as that at the B.A. Honours and M.A. examinations, respectively.

(8) That the Syndicate be requested to draft and submit to the Senate such amendments of the existing University regulations as may be necessary to give effect to the above propositions.

APPENDIX No. 18. (*Vide* Chapter XVII-D.)

REV. R. ZIMMERMANN'S LETTER ON THE STUDY OF ORIENTAL LANGUAGES.

Some observations on the Study and Teaching of Oriental Languages at the University of Bombay.

The study and teaching of Oriental Languages at the Bombay University is too literary and not philological enough. The study of languages comprises the scientific knowledge of both the language as the means of expressing the thought and the thought expressed. The first examines the structure of the language, the second the contents. The present method practically neglects the first and does the second in an unsatisfactory way. This has led to deficiencies conspicuous in study as well as in examination, and has deprived the study of languages of that educational value it otherwise would have.

The study of Grammar is the basis for all philological and scientific literary knowledge. Grammar is analytical, historical and comparative. To penetrate a language and to realise its position among cognate and other languages all the three kinds of Grammar are necessary. Needless to say that they are indispensable in questions of textual and literary criticism. In some languages, Sanskrit for instance, Grammar is a science of its own, with its peculiar method and proper value. But in all the classical languages without exception the scientific knowledge of Grammar is the condition *sine qua non* of practical knowledge and of research. The grounding in Grammar enables the student to work in a clear, definite manner. The want of a scientific study of Grammar is as evident as the defects arising out of that want are. To mention only one or two examples: The B.A. student in Sanskrit is quite helpless if faced with Vedic forms, and the M.A. student generally cuts a bad figure when confronted with Prakrit passages. What little classical Grammar may have been acquired in the beginning is generally forgotten during the curriculum. The way in which both the Vedic and Prakrit Grammar are handled excites the commiseration of every well-trained scholar. Yet Vedic and Prakrit languages are essential to a knowledge of Sanskrit that is worth the name from a philological or even generally academic point of view. The insertion of Analytical, Historical and Comparative Grammar seems to be the first step in the reform of philological studies.

The number of languages studied at the Bombay University will have to be increased in the same proportion as the study of languages become deeper and wider. Such languages in which a good many valuable research works have been written, like Russian, or in which many texts are preserved in translations from a classical Indian language, Chinese and Tibetan for instance, will have to be added to the syllabus.

The present curriculum is also deficient in regard to the contents of the language, or the literary side, not being real enough. The classical languages especially are treated too much as dead languages. Hardly

any attempt has been made to raise to life the world and the time of which Sanskrit and Avesta, Arabic and Persian are witnesses before the eyes of the student. Part of the difficulty encountered by the student of these languages consists in this that they are a sum of dead letters to him, instead of being the carriers of living ideas and concrete facts, which were as real in the past as life and culture is to us now. To make the study of dead languages a more live thing, Epigraphy and especially Archæology will have to be made subsidiary to the study of languages. The History of Religion and Philosophy is indispensable for a comprehensive task of the Sruti texts, the Veda especially, and the great mass of philosophical texts cannot be understood in some of their most interesting and important bearings without a knowledge of philosophy, especially from an historical and comparative point of view. Mimansa, now entirely neglected, should be taken up both as a theoretical study of the text and by practical demonstrations of the ancient ritual. If a regular course of lectures on the Method of Philology cannot be introduced, such lectures should be given every two or three years.

The present system of examining in oriental languages is too mechanical. It does not force the pupil to think for himself, but simply tries to get out of him what has been put into him by methods of teaching which too often are not very academic. The B.A. and M.A. examinations, at any rate, should have a broad margin which cannot directly be prepared by cramming, but only by doing the course in a reasoned manner, thereby acquiring a scientific method and that general knowledge which makes the knowledge of the detail worth having. The oral examination seems indispensable as it is less liable to become stereotyped and may bring out the worth of a candidate in a way in which the written test cannot do. A thesis is a better standard for finding out what a student has learnt and what he will be able to do in the future than papers set on prescribed texts. As examination and study are interdependent the courses of study will have to be shaped in such a way as to form also a preparation for the examination, though the contents and the use of a course of study extend far beyond the passing of an examination, however successfully. One of the first and best means to train students and scholars is to climinate annotations and translations of texts, which are a direct inducement to cramming and merely reproducing, instead of producing and advancing, knowledge for himself and for others by the student. The reasons for the traditional method are partly historical; that method has served its purpose and should make room for a more progressive method now.

There is however a peculiar difficulty in the way of the progressive method of studying Sanskrit and perhaps also of Arabic. Sanskrit has, in some branches at any rate, a method of its own which is traditional to such an extent that it either has to be kept as it is or has to be given up altogether. If it is intended to preserve the ancient learning, both matter and method in these subjects, *e.g.*, Grammar and Mimansa, have to be allowed to be and to be done in the same way as some 1,500 years ago. The position with regard to the teaching of the Sruti or Veda texts is

awkward. For the treatment of these texts is different at the hands of the old and the new philology. The old school is conservative, the new critical so that in frequent cases they contradict one another. A good deal of the knowledge of these subjects and of the method is handed from one generation of Shastris and Pandits by oral tradition. If they die out the ancient learning will to a great extent be lost for good. If then the ancient learning is to be preserved and at the same time these subjects are to be treated on the lines of modern philology, there seems to be no other way but to create an Institute which takes care of the ancient learning, keeping both the subject and the old method. The teaching at the Faculty of the University will be on modern lines. The modern student and scholar will derive benefit from the old school; the old school may or may not gain by the new one.

R. ZIMMERMANN.

Bombay, February 10, 1925

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